

**PANASONIC®****Service Manual**

**SOLID STATE 4-TRACK STEREO  
TAPE RECORDER  
MODEL RS-790S**

**SPECIFICATIONS**

Power Source:	AC: 117 volts 60 cps	Frequency Response:	40~18,000 cps at 7-1/2 ips
Power Consumption:	Approx. 50 W		40~10,000 cps at 3-3/4 ips
Music Power Output:	8 W x 2		40~ 5,000 cps at 1-7/8 ips
Transistor:	2SB 346 (4) 2SB 175A (4) 2SB 473 (4) 2SB 324 (2)	Input:	"MIC" 20 K $\Omega$ -67 dB (2) "AUX" 100 K $\Omega$ -20 dB (2)
Diode & Rectifier:	OA 70 (2) FR-1M (1) 25F (1)	Output:	"LINE" 10 K $\Omega$ 0-dB (2) "EXT. SP" 8 $\Omega$ (2) "HEADPHONE" 8 $\Omega$ (1)
Recording System:	AC bias 50 Kc	Program Time:	12 hours for 7" 150% tape at 1-7/8 ips
Erase System:	AC erase	Recording Level Indicator:	VU meter
Reel Size:	7" max.	Built-in Speaker:	7" x 5" dynamic speaker (2)
Track System:	4 track stereo system	Dimensions:	16-11/16" (W) x 17-3/16" (H) x 9" (D)
Tape Speed:	3 speeds, 7-1/2, 3-3/4 and 1-7/8 ips	Weight:	Approx. 38-1/4 lb

**MATSUSHITA ELECTRIC CORP. OF AMERICA****Pan-Am Bldg., 200 Park Ave., New York, N.Y. 10017**

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CANADA/MATSUSHITA ELECTRIC OF CANADA LTD., 1054 Kipling Ave. North, Rexdale, Ont.

# LOCATION OF PARTS

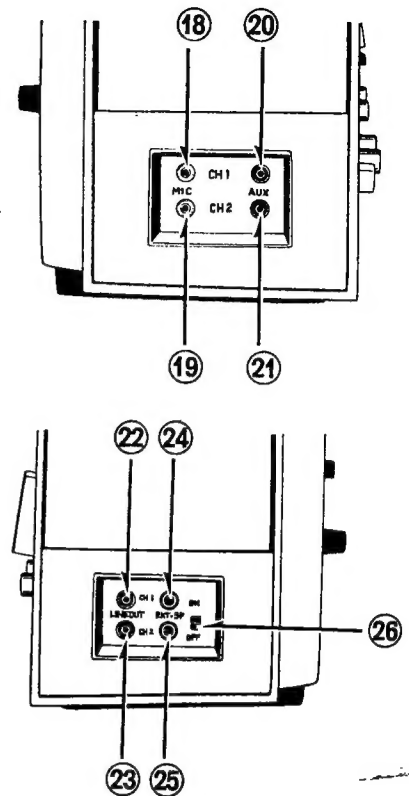
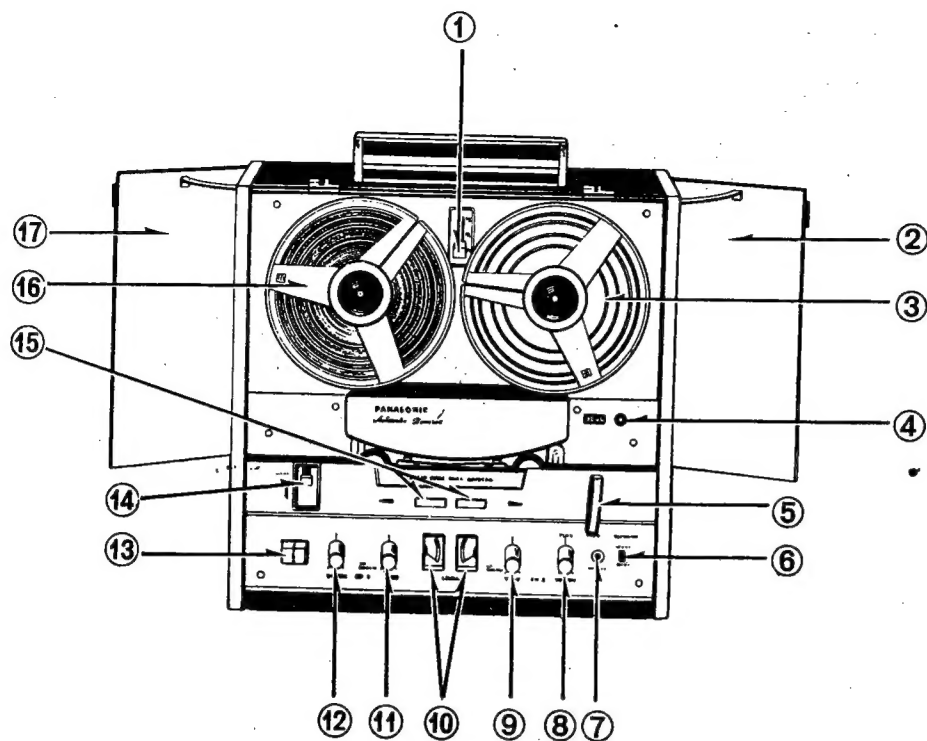


Fig. 1

- ① Speed Selector Switch
- ② Reflector for Channel 2 Speaker
- ③ Right Reel
- ④ Tape Counter
- ⑤ Function Lever
- ⑥ Stereo/Monaural Selector Switch
- ⑦ Stereo Headphone Jack
- ⑧ Channel 2 Volume Control and Power ON/OFF Switch
- ⑨ Channel 2 Tone Control and Monitor Switch
- ⑩ VU Meters
- ⑪ Channel 1 Tone Control and Monitor Switch
- ⑫ Channel 1 Volume Control
- ⑬ Record Buttons

- ⑭ Pause Lever
- ⑮ Direction Push Buttons (Forward and Reverse)
- ⑯ Left Reel
- ⑰ Reflector for Channel 1 Speaker
- ⑱ Channel 1 Microphone Jack
- ⑲ Channel 2 Microphone Jack
- ⑳ Channel 1 Auxiliary Jack
- ㉑ Channel 2 Auxiliary Jack
- ㉒ Channel 1 Line Output Jack
- ㉓ Channel 2 Line Output Jack
- ㉔ Channel 1 External Speaker Jack
- ㉕ Channel 2 External Speaker Jack
- ㉖ Speaker ON/OFF Switch
- ㉗ Sensing Pole for Automatic Reverse
- ㉘ Left Pressure Roller
- ㉙ Left Capstan
- ㉚ Record/Playback Head for Reverse Operation
- ㉛ Erase Head for Reverse Operation
- ㉜ Tape Shifter
- ㉝ Erase Head for Forward Operation
- ㉞ Record/Playback Head for Forward Operation
- ㉟ Right Capstan
- ㊱ Right Pressure Roller
- ㊲ Automatic Shut-off Switch
- ㊳ Sensing Pole for Automatic Re-reverse

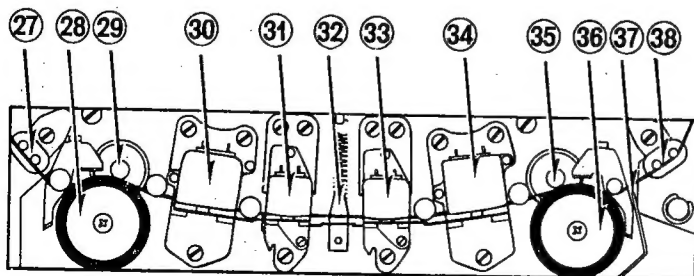


Fig. 2

# BLOCK DIAGRAM OF ELECTRICAL CIRCUITS

## RECORDING CIRCUIT

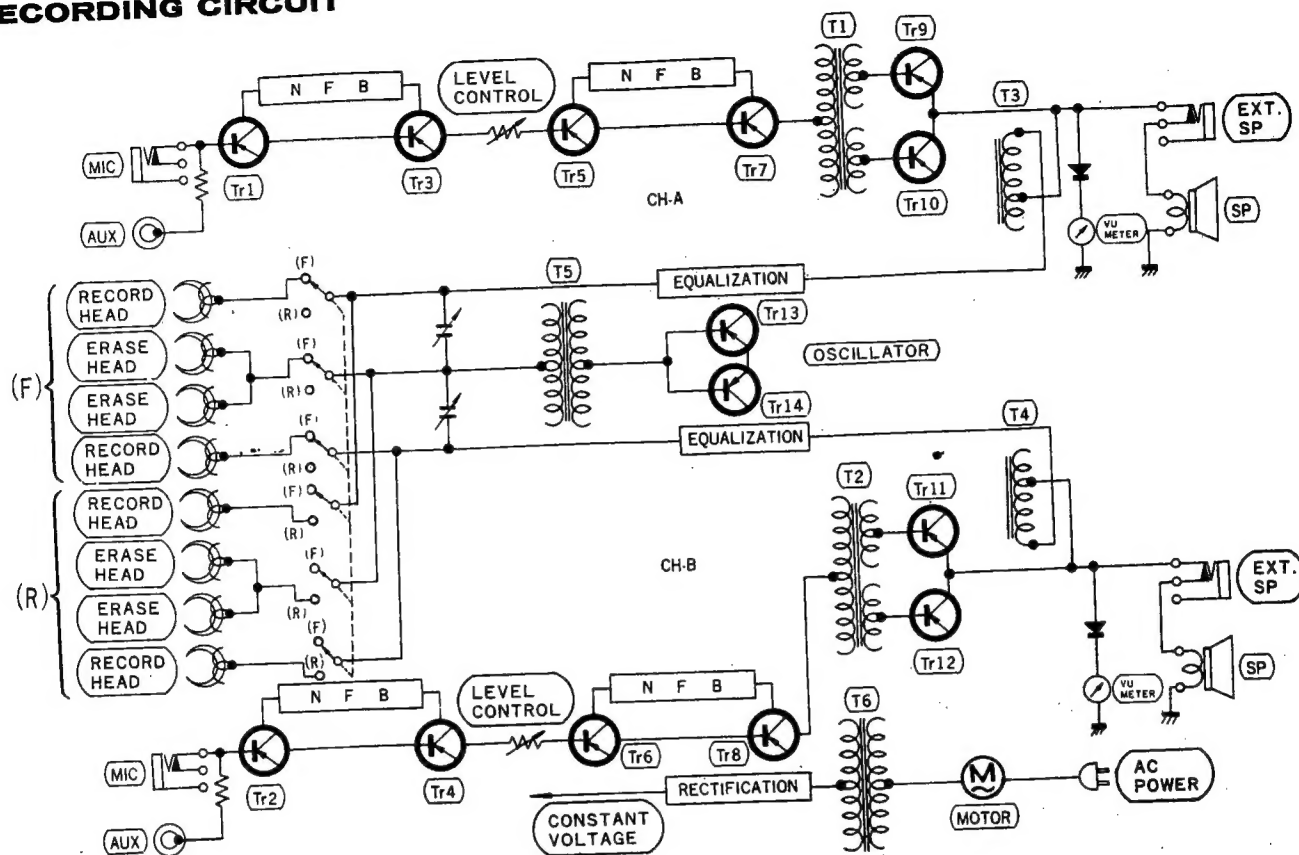


Fig. 3

## PLAYBACK CIRCUIT

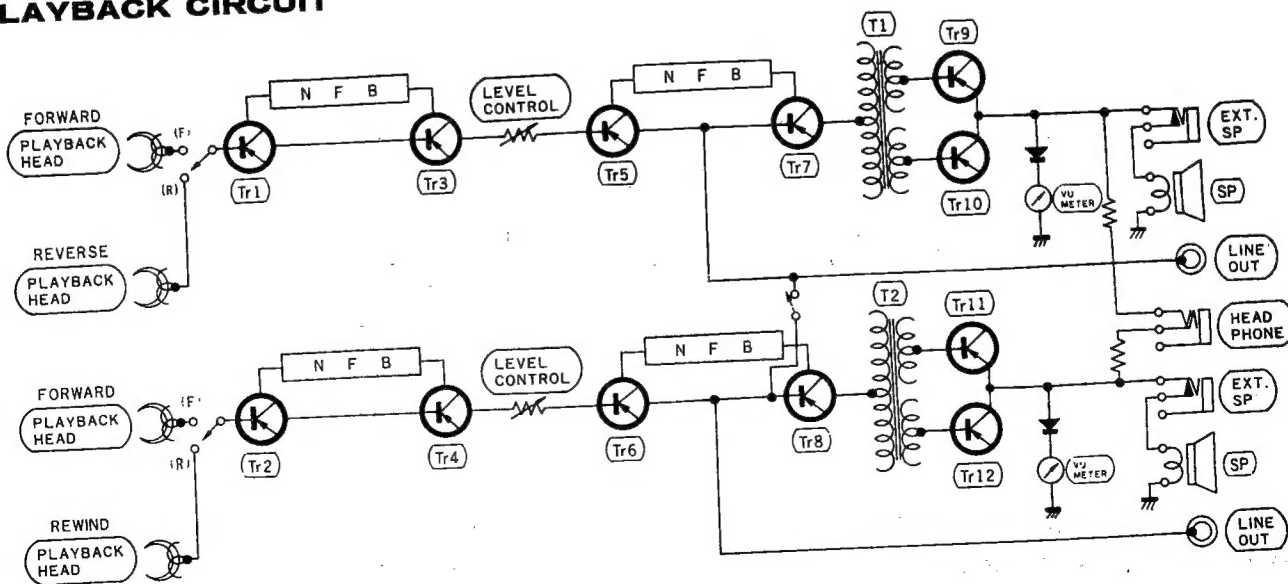
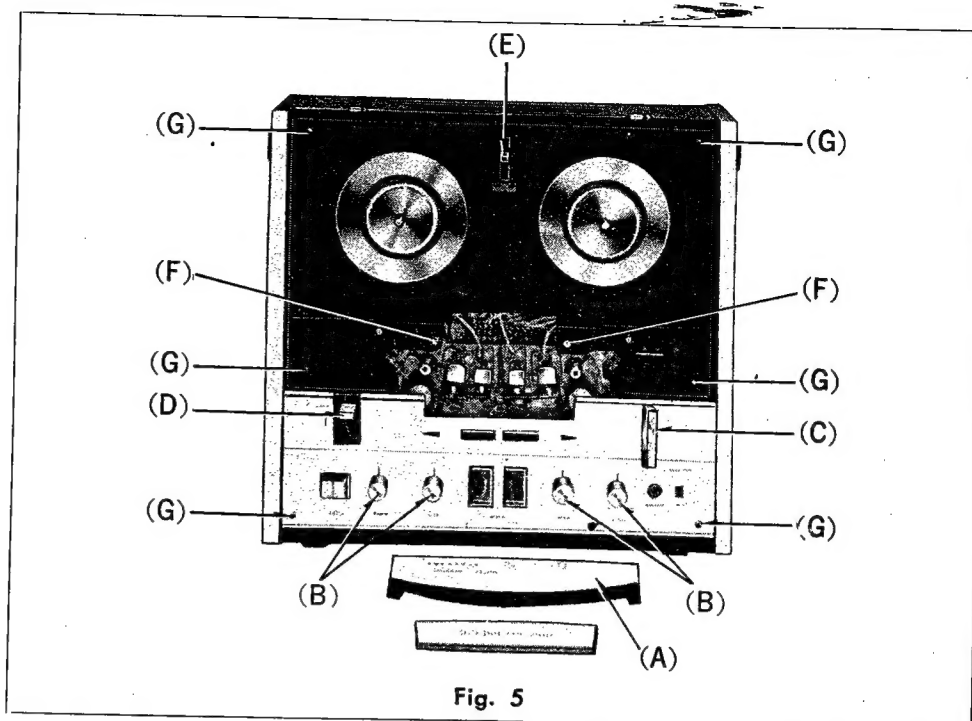


Fig. 4

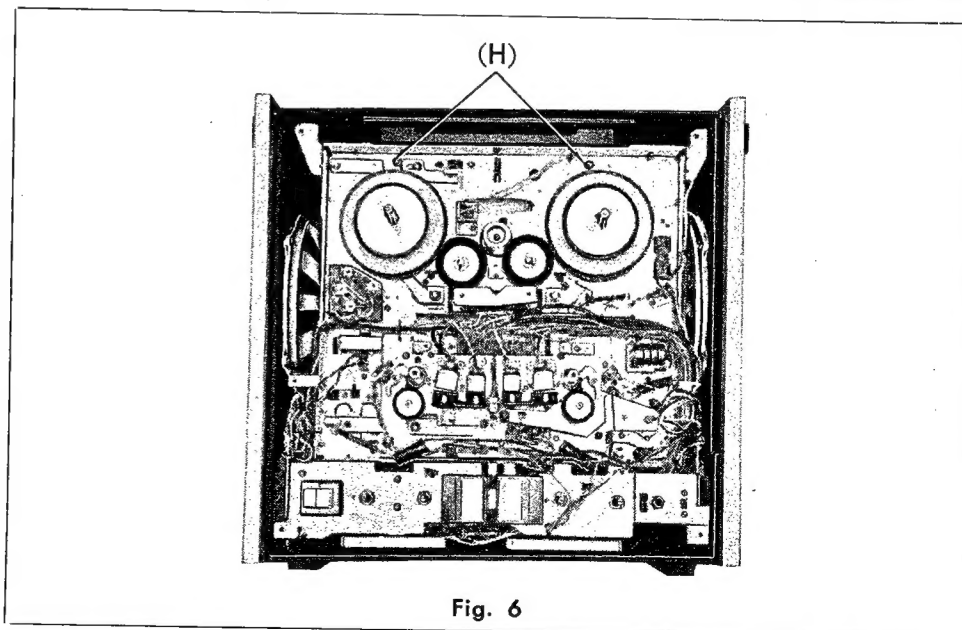
# DISASSEMBLY INSTRUCTIONS

## HOW TO REMOVE PANEL



1. Remove the Head Cover (A).
2. Remove the Volume Controls and Tone Controls (B) (4 Controls).
3. Remove the Function Lever Knob (C).
4. Remove the Pause Lever Knob (D).
5. Remove the Speed Selector Knob (E).
6. Remove 2 Setscrews (F) in the center.
7. Remove 6 Setscrews (G) of the Panel, and draw out the Panel Slowly.

## HOW TO REMOVE BODY CASE



1. First remove the Panel.
2. Remove 2 Setscrews (H) of the Mechanism Chassis.
3. Turn the set upside down, and remove 4 Setscrews of Rubber Feet.
4. Remove the Body Case by slowly lifting it.
5. Lead Wire of the Speaker can be separated if the Connector is removed.

# TAPE TRANSPORT OPERATIONS

## GENERAL OPERATING INSTRUCTIONS

RS-790S is operated with a 3-Position Lever. When this Lever is set to PLAY, the unit is placed into the playback mode, and the Tape is forwarded to the right or left at a constant speed. When the Lever is set to PLAY while pressing the Record Button, the unit is placed into the recording mode. When the Lever is set to FAST WIND, the Tape is forwarded rapidly to the right or left. When the Lever is set to STOP thereby releasing all the mechanisms, the Tape stops running while the Motor keeps on rotating.

## POWER SUPPLY

The Channel 2 Volume Control Knob is used for switching the power source ON and OFF. When the Tape finishes during recording, playback or fast forwarding, the Tension Arm switches off the power source as the Automatic Shut-Off Mechanism functions.

## THREADING OF TAPE

The Tape can be threaded only when the Operating Lever is set at STOP. When it is set to other position than STOP, the Shut-Off Arm rises out so that the Tape cannot be threaded.

## PLAYBACK

Set the Operating Lever to PLAY. Select the direction of Tape by the Direction Buttons. Tracks 1 and 3 are played back in the normal forward mode, while Tracks 4 and 2 in the reversing mode. The Sound Reflectors are opened so that the best results will be obtained.

## RECORDING

Depress the Record Button (both Buttons in the case of a Stereo) of the Channel of which you desire to make recording. Set the Operating Lever to PLAY. Select the direction of Tape by the Direction Button. Tracks 1 and 3 can be recorded in the normal forward mode, while Tracks 4 and 2 in the reversing mode.

## FAST FORWARD

When the Operating Lever is set to FAST WIND, the Tape is forwarded fast to the right or left. Select the direction of the Tape by the Direction Button before turning the Operating Lever. When changing the direction of fast forwarding, the Operating Lever should be set to STOP.

## SELECTION OF TAPE SPEED

Tape speed can be selected only while the motor is rotating (only while the power is supplied). If the Speed Selector Lever is moved with the power source switched OFF, the Belt may get entangled with the Motor Pulley when the power source is switched on.

## AUTOMATIC RECIPROCATION

If you attach Sensing Tape (Metal Sensing Foil) to both ends of the Tape, continuous playback is available between them until the Tape stops. In the case of recording, after a reciprocal recording, the Tape does not reverse for the 2nd reciprocation, but is taken up onto the Left Reel regardless of the Sensing Tape. This is in order to prevent re-recording on the once recorded Tape.

## PLAYBACK

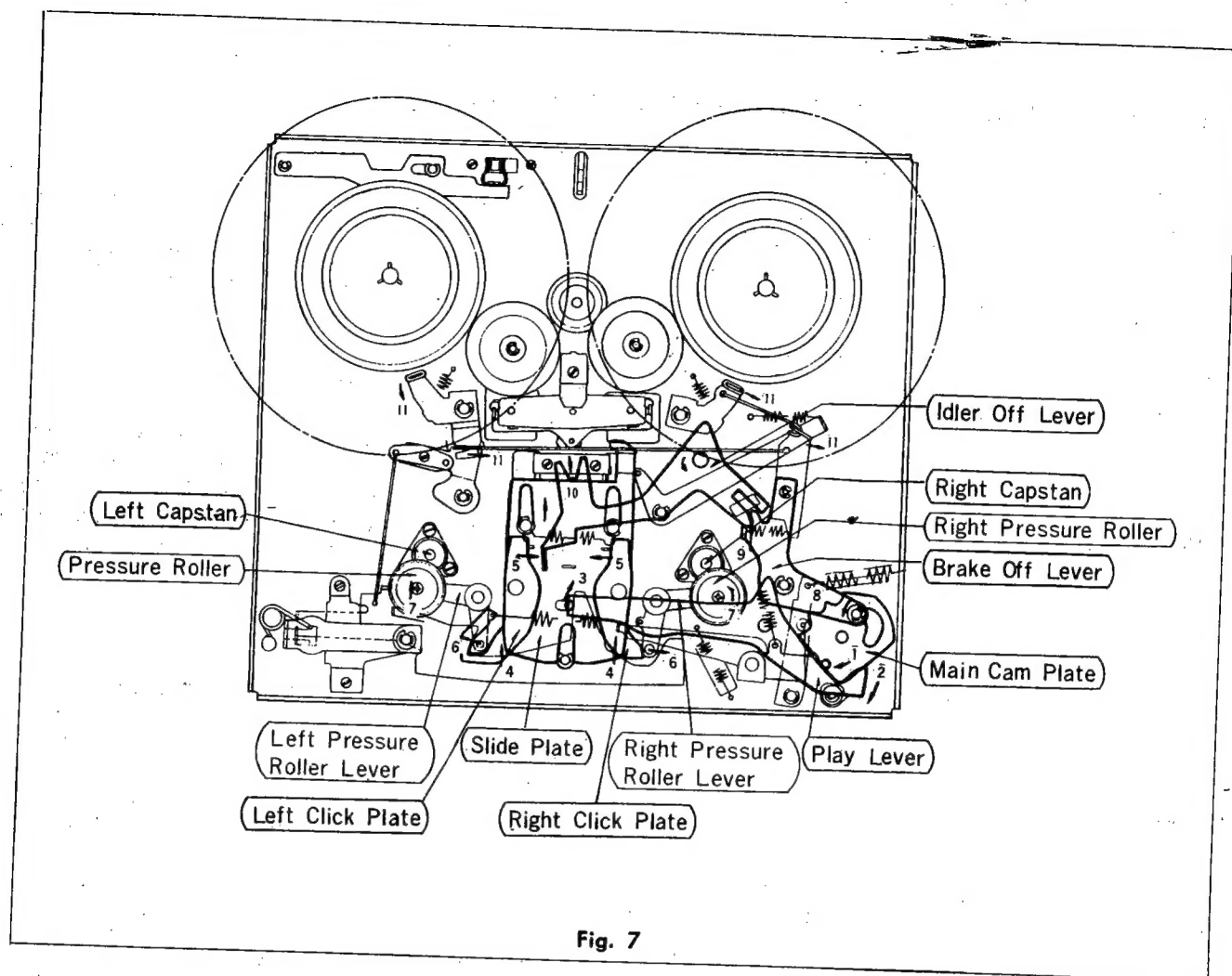


Fig. 7

(See Figs. 7~9. The numerals in parentheses correspond to Ref. Nos. in the figure.)

When the Operating Lever is set to PLAY, the following actions occur simultaneously, and the Tape is forwarded to the right or left at a constant speed. (The direction of the Tape is selected by the Direction Button.)

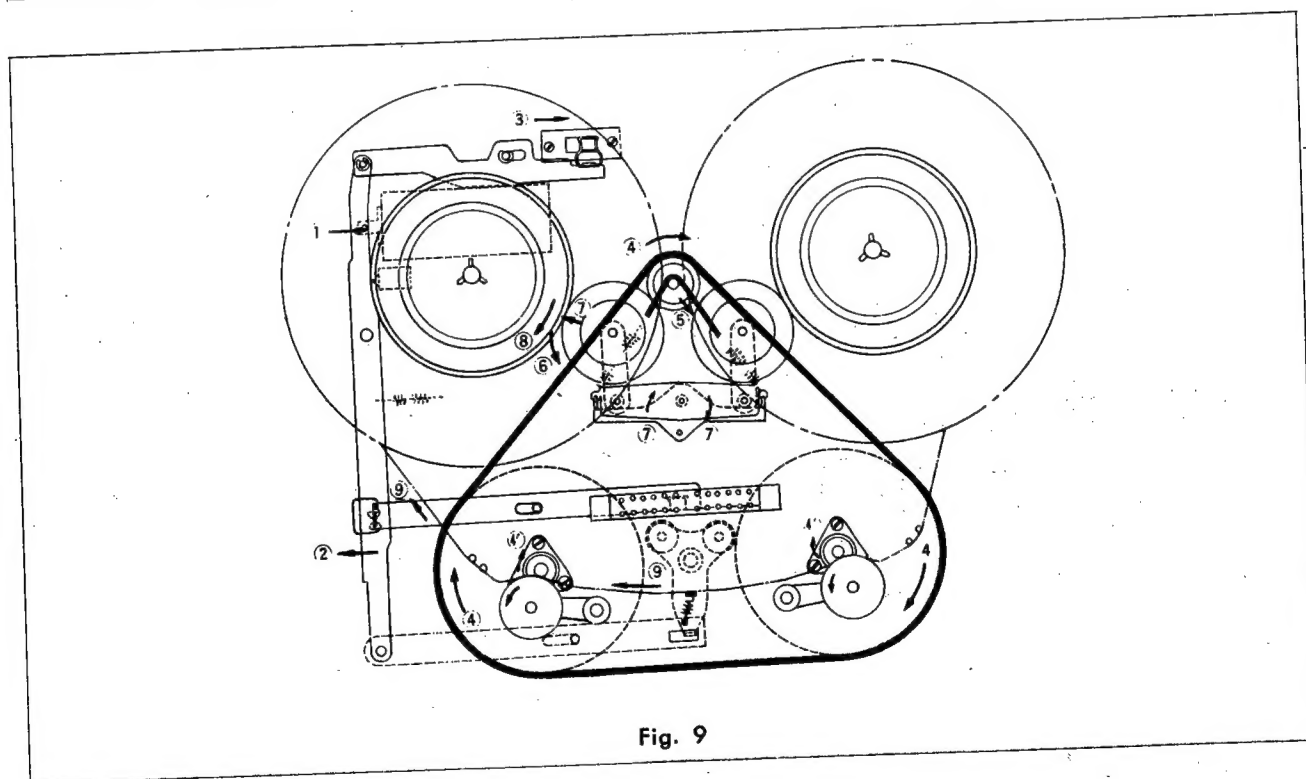
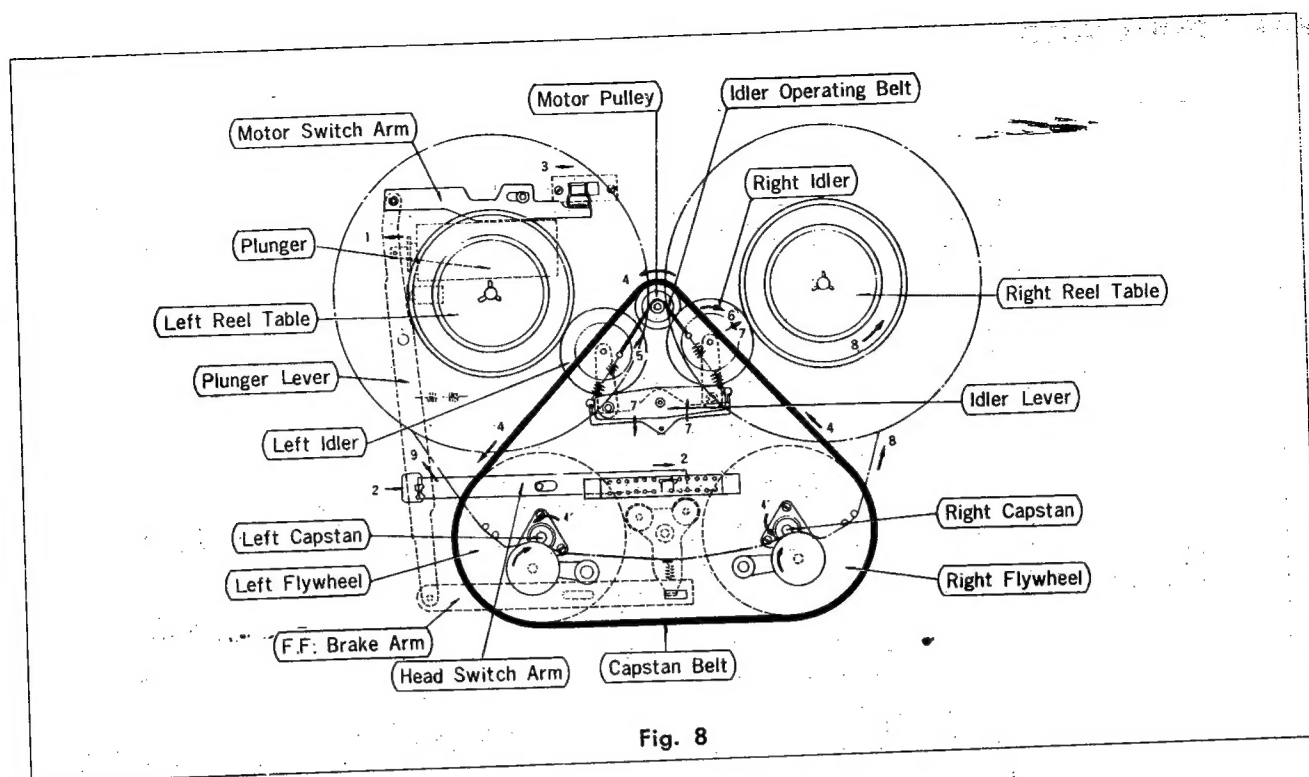
As the Operating Lever is turned, the Main Cam Plate moves (1), and the Play Lever is pushed down (2). The Play Lever Pushes up the Slide Plate (3), and the Right and Left Paw Plates connected with it pushes the Right and Left Pressure Roller Levers (4, 6). The Pressure Roller Levers press the Pressure Rollers to the Right and Left Capstan Shafts, respectively (7). The pressure of the Pressure Roller against the Capstan is made by a Spring (5), and is uniform.

On the other hand, the Brake-Off Lever moved by the Main Cam releases both Reel Table Brakes (11), and at the same time moves the Idler-Off Lever, thereby making the Idler move freely (9, 10). During the normal forward, the motor pulley rotation (counterclockwise) (4)

moves the Idler Operating Belt (5), and slant the Idler Lever (7), thereby pressing the Right Idler against the Motor Pulley and Right Reel Table Friction Pulley (7). At the same time, the motor pulley rotation makes the Right Reel Table (8) turn to take up the Tape through the Right Idler (6).

The motor pulley rotation is transmitted to the Capstan Belt (4) and turn the Right and Left Flywheel, thereby forwarding Tape at a constant speed by the Right and Left Capstan Shafts (9). At this time the R. P. M. of the Capstan Shaft on the tape takeup side is a little more than that of the Capstan on the reverse side due to reduction of the actual flywheel diameter by the belt tension, and therefore the Tape between both Capstans maintains its tension.

The same applies to the reverse forward. The Plunger performs selection of motor polarity and change of Heads, and the Tape is forwarded to the left through the same actions as in the normal forward.



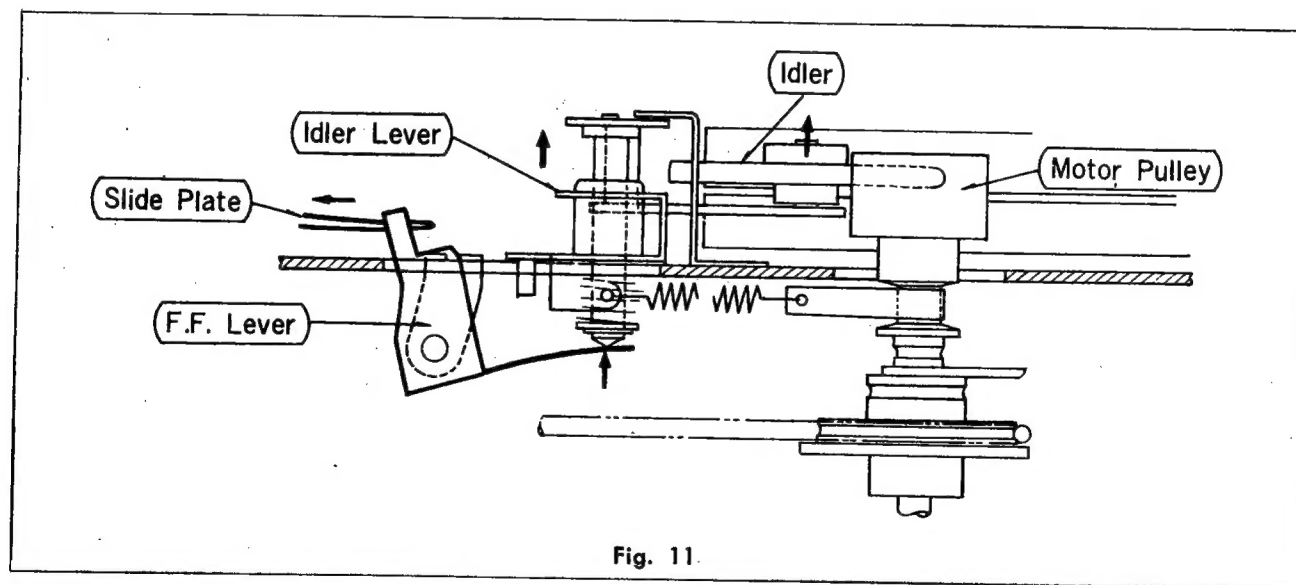
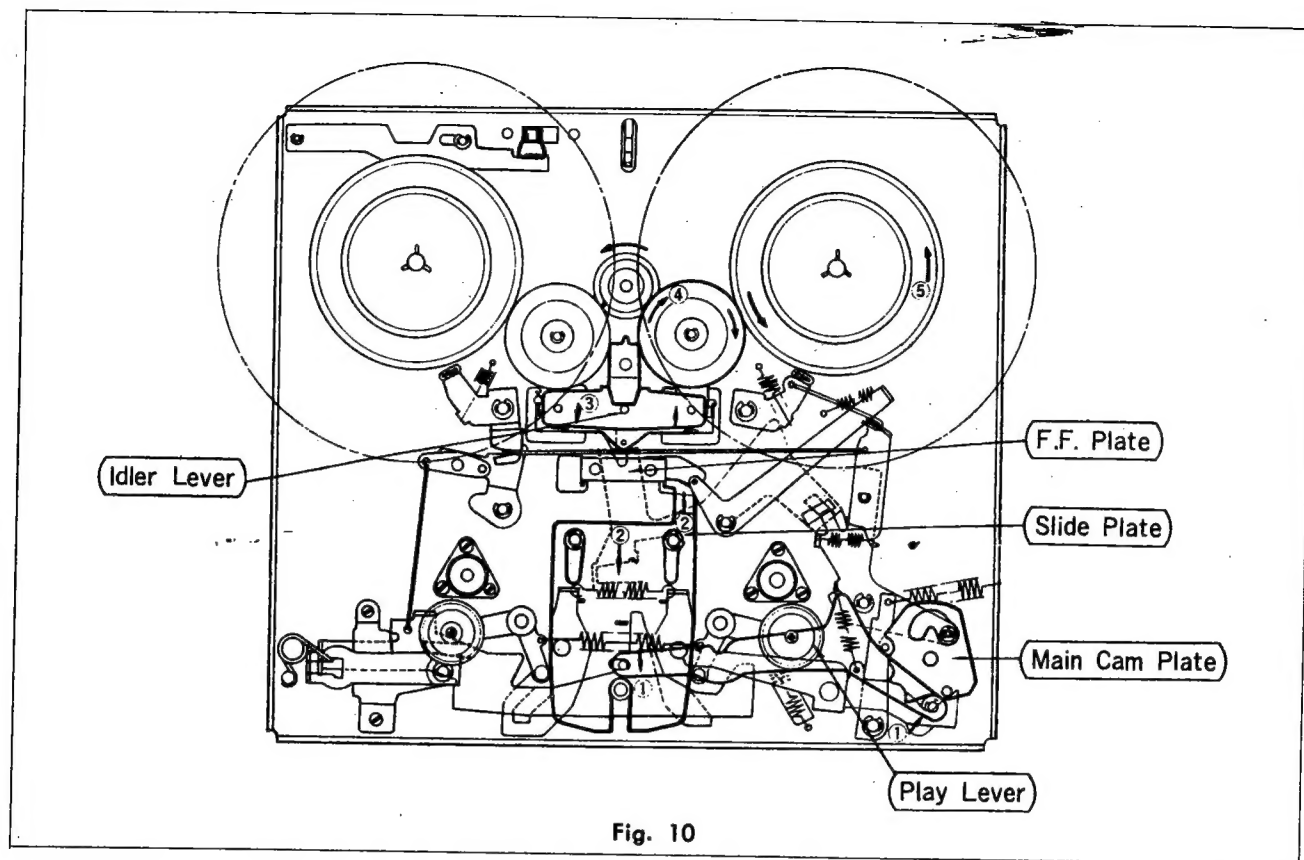
## RECORDING

When the Record Button is depressed, the Record/Playback Selector Switch on the Printed Base Plate is placed into the recording mode. When the Operating Lever is

turned to PLAY, the Tape moves through the same actions as in playback, and carries on recording.



## FAST FORWARD



When the Operating Lever is set to FAST WIND, the Main Cam Plate moves the Play Lever to bring down the Slide Plate. (See (1) and (2) of Fig. 10) The Paw at the slide plate end pulls the Fast Forward Lever, thereby pushing up the Idler Lever. (See Fig. 11) As the motor rotates, the Operating Belt works to press either the Right or

Left Idler against the Reel Table and Motor Pulley. (Since the Idler is pushed upward as mentioned above, it is pressed against the Reel Table instead of the Friction Pulley.) (See Fig. 12) Through the Idler, the motor pulley rotation makes either the Right or Left Reel Table turn fast, thereby taking up the Tape.



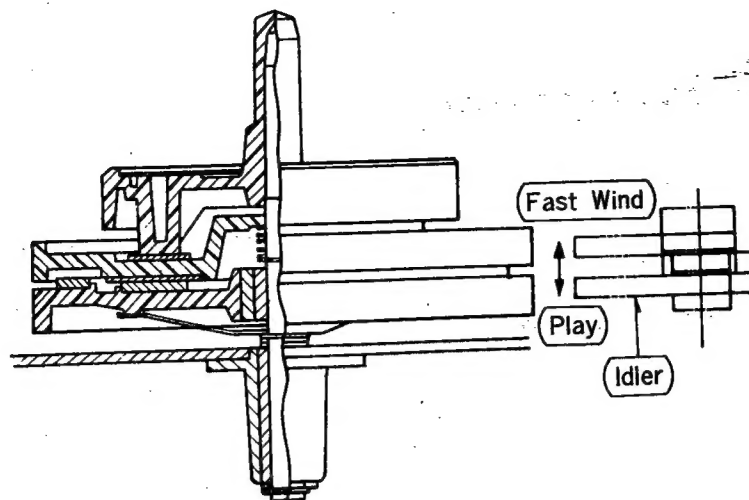


Fig. 12

# **INSTANT STOP (PAUSE CONTROL)** (See Fig. 13)

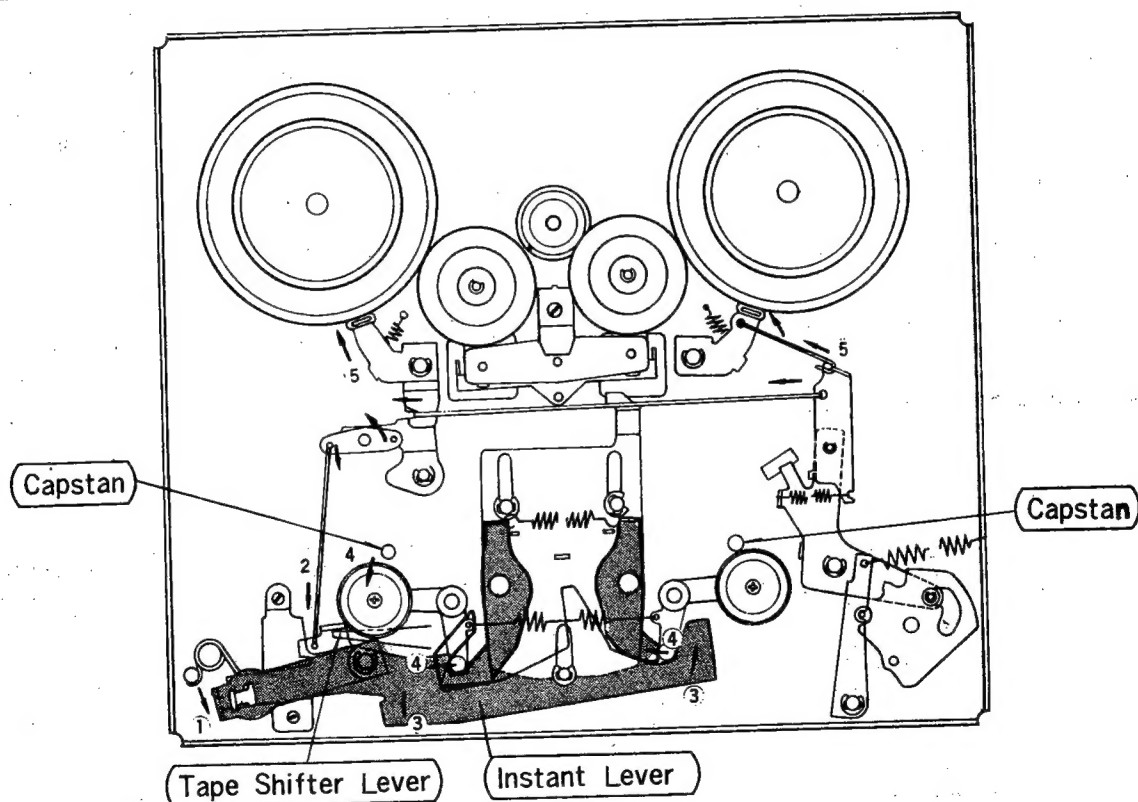


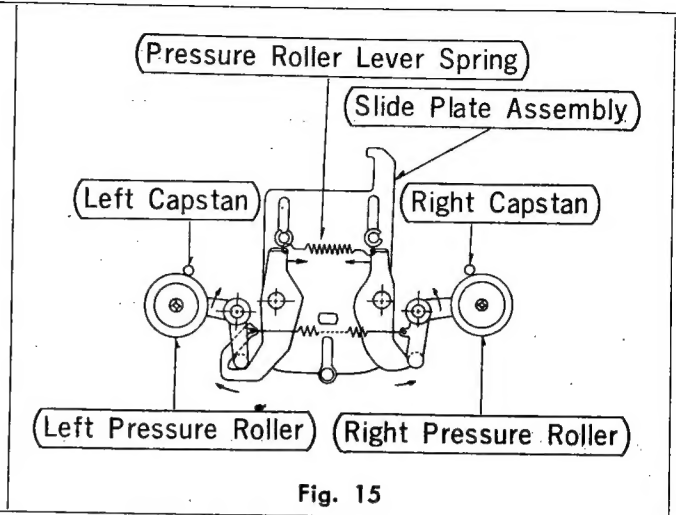
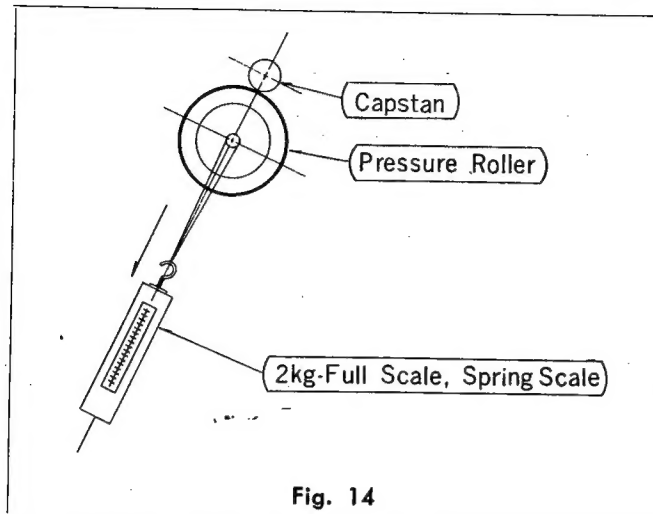
Fig. 13

When the Pause Lever is depressed during playback or recording, the following actions occur simultaneously and the Tape stops. When the Pause Lever is turned down, the Inst. Lever (3) moves the Right and Left Pressure Roller Levers, thereby separating the Pressure Roller from the Capstan. At the same time, it turns down the Tape

Shifter Lever, thereby separating the Head Pad from the head, and the Tape from the head surface. Also, the Inst. Lever pulls the Brake Rod, thereby putting on the Reel Table Brakes. The Pause Lever is locked by the Spring. Either one of the Pause Lever and Operating Lever can be operated first.

# MECHANICAL ADJUSTMENTS

## PRESSURE OF PRESSURE ROLLER



**Specified Value:** 1.4~1.9 kg

The difference in pressure between the Right and Left Pressure Rollers should be less than 0.25 kg.

**Measuring Method:**

Use a spring scale of 2 kg full scale.

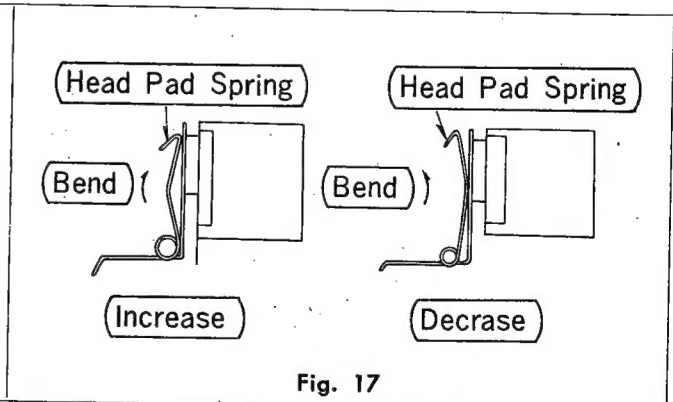
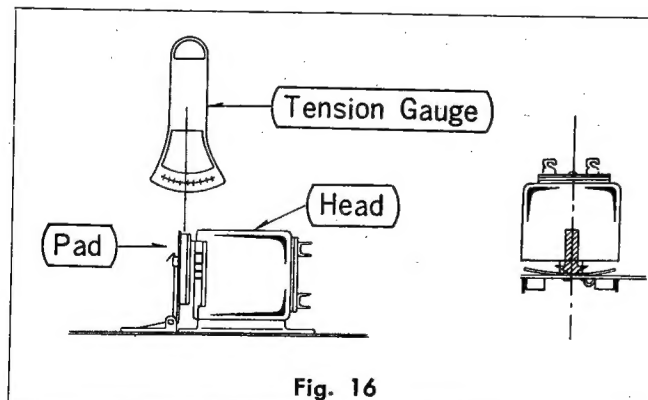
During the playback, pull the spring scale on the line

between the center of the Capstan and that of the Pressure Roller in the separating direction, and take the reading of the spring scale when the Tape stops. (See Fig. 14)

**Adjusting Method:**

Make the adjustment by use of elongation and contraction of the Pressure Roller Lever Spring. (See Fig. 15)

## PRESSURE OF HEAD PAD



**Specified Value:** (Erase Head) 5~10 g  
(Record/Playback Head) 10~15 g

**Measuring Method:**

Measure the force of separating the Pad from the Head above the center of the Pad Plate by use of a tension

gauge. (See Fig. 16)

**Adjusting Method:**

Make the adjustment by use of bending of the Head Pad Spring. (See Fig. 17)

## TAPE TAKEUP TENSION DURING PLAYBACK

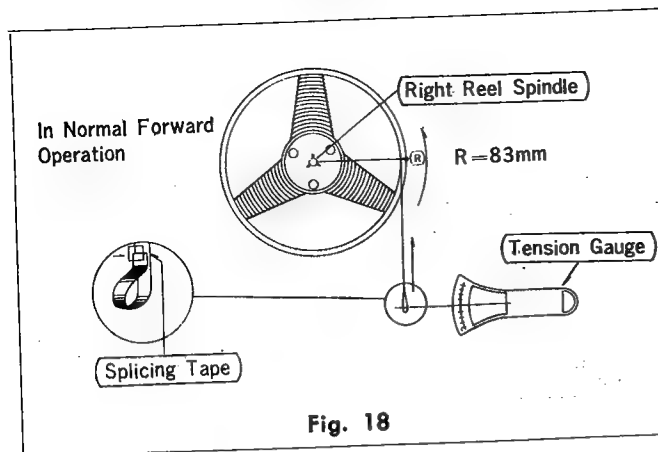


Fig. 18

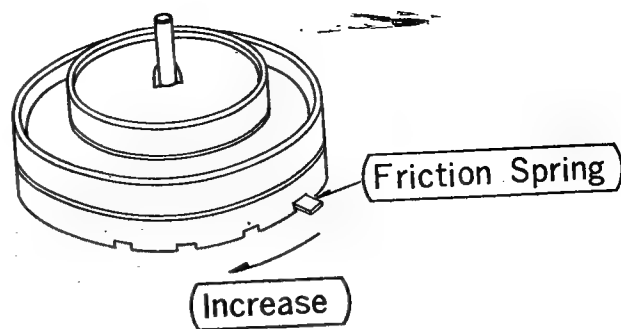


Fig. 19

Specified Value: 23~33 g

Measuring Method:

Make a loop of 7" Tape End, suspend a tension gauge from it, place the set into the playback mode, and read the average value during a turn according as the Tape is taken up. (See Fig. 18)

Adjusting Method:

If the Friction Spring of the Reel Table is slid clockwise (4 stages), the takeup tension increases. Make the adjustment as to the Right and Left Reel Tables, respectively (in normal forward and reverse forward modes). (See Fig. 19)

## TAKEUP TENSION DURING FAST FORWARD

Specified Value: More than 150 g

Measuring Method:

Same as that of takeup tension during playback, excepting that the set must be placed in the fast forward mode.

Adjusting Method:

Make sure that the Reel Table Felt, Slip Ring, etc. show no such abnormality as staining. There is no special method for this adjustment.

## BACK TENSION DURING PLAYBACK

Specified Value: 12~25 g

Measuring Method:

Put the 7" Tape on the takeup side, pull the Tape for a turn in the tape pulling out direction, and read the average value. (See Fig. 20)

Adjusting Method:

There is no special method for this adjustment. If the specified value is not satisfied, check if there is no stain or oil is not out on the Reel Table Shaft.

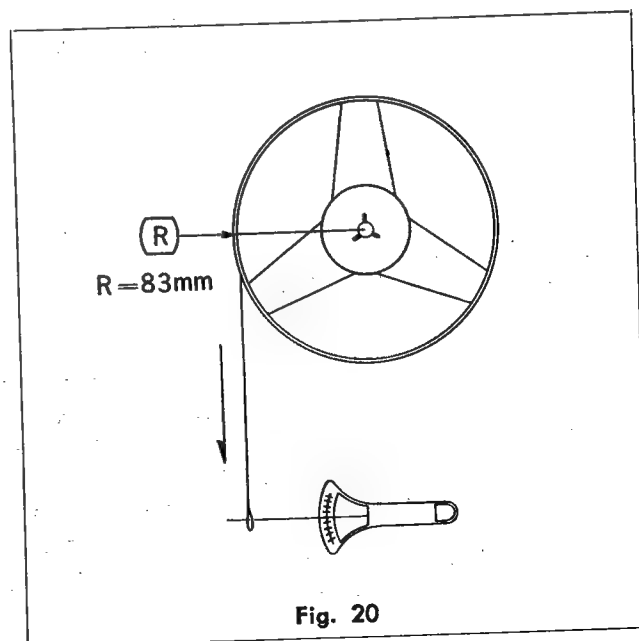


Fig. 20

## BRAKE POWER

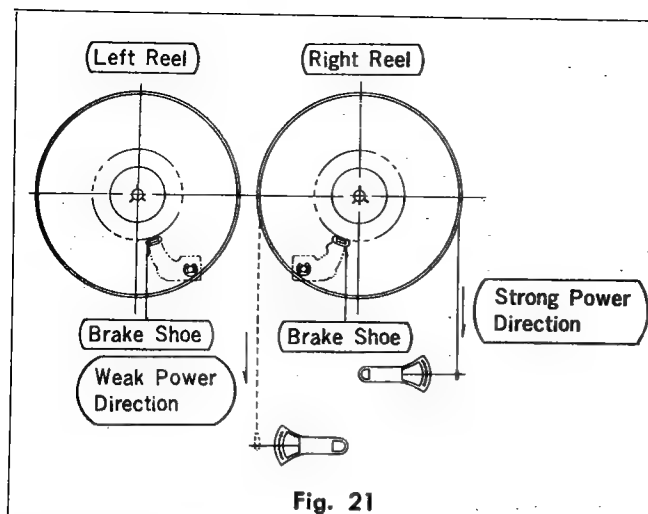


Fig. 21

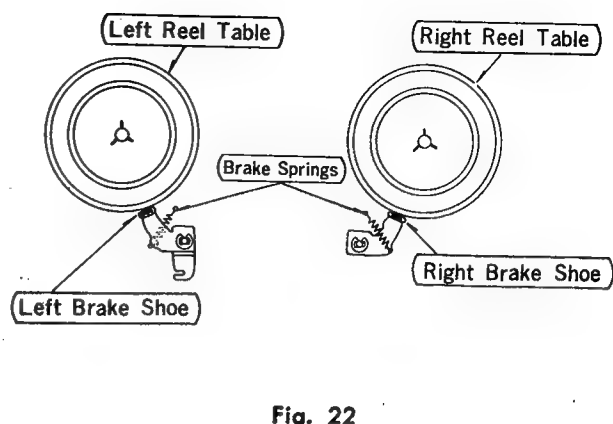


Fig. 22

Specified Value: (Strong Power Direction)

200~350 g

(Weak Power Direction) 40~150 g

The difference in brake power between the strong power direction and weak power direction should be more than 100 g. (One side Strong Power Direction, and the other side Weak Power Direction)

### Measuring Method:

Suspend a tension gauge from the end of the 7" Reel Tape in the stop mode, pull it and read the average value for a turn of the Reel. (See Fig. 21)

### Adjusting Method:

Make the adjustment by use of elongation and contraction of the Right and Left Brake Springs. (See Fig. 22)

## ADJUSTMENT OF PAUSE BRAKE

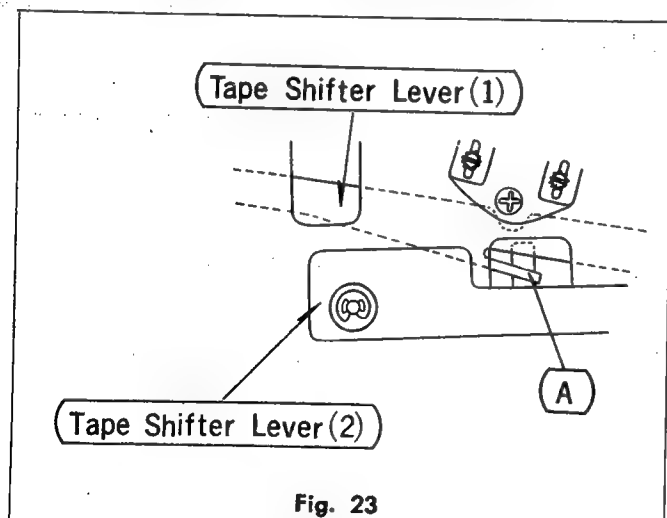


Fig. 23

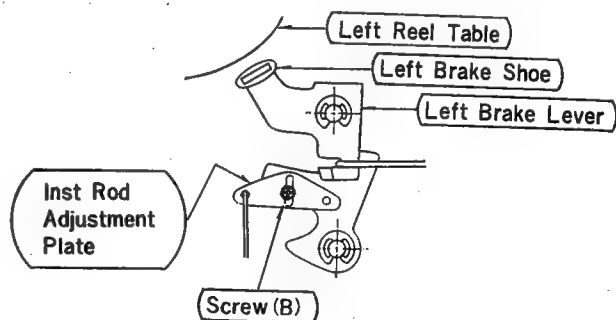


Fig. 24

1. When the Pause Lever is pulled down in the playback mod: The Pad Plate should move away from the Head by the time when (or at the same time that) both the 2 Pressure Rollers move away from the Capstan. If not, make the adjustment by bending the (A) part of the Tape Shifter Lever (1) by using a screwdriver. (See Fig. 23)
2. The Right and Left Brakes should be pressed against the Right and Left Reel Tables, respectively, after the Pause Lever is turned low and the Pressure Roller moves away from the Capstan. This timing can be modulated by loosening the Screw (B) shown in Fig. 24 and adjusting the Inst. Rod Adjusting Plate. After the adjustment, the Screw (B) must be locked with paint.

# HEAD ADJUSTMENTS

## HEAD HEIGHT

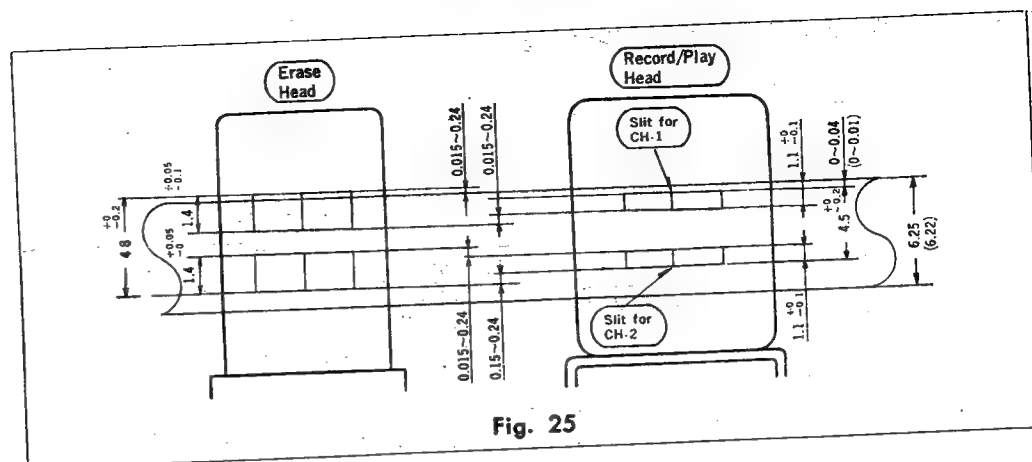


Fig. 25

The relative positions of Tape and Head are as shown in Fig. 25. The head height can be adjusted by Screws

(1)~(3) of the Heads.

## ANGLE ADJUSTMENT

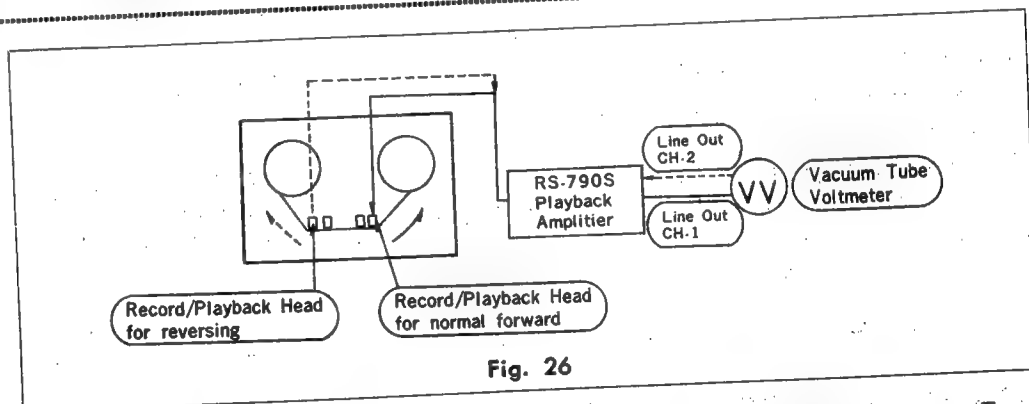


Fig. 26

Testers: Vacuum Tube Voltmeter, Standard Tape for 7 Kc (at 7-1/2 ips) Angle Adjustment (or Tape on which recording is made by a reliable tape recorder)

Connect wires as shown in Fig. 26, thread the Tape and

place the tape recorder into the playback mode. Turn either of the Angle Adjustment Screws ((3) or (2) in Fig. 27) by a 1/4 turn, and make the adjustment so that the reading on the Vacuum Tube Voltmeter connected to the Line Out becomes maximum.

## ERASE HEAD

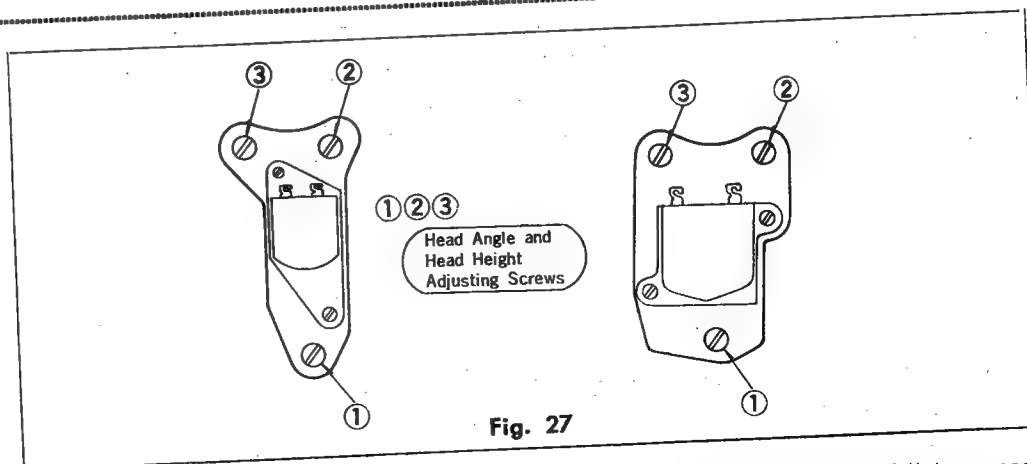


Fig. 27

After adjusting the angle and height of the Record/Playback Head, adjust the position of the Erase Head according to Fig. 25.

The Angle should be so adjusted that the Slit becomes perpendicular to the running tape (by observing with the eyes).

# AMPLIFIER ADJUSTMENTS

## BIAS OSCILLATOR FREQUENCY

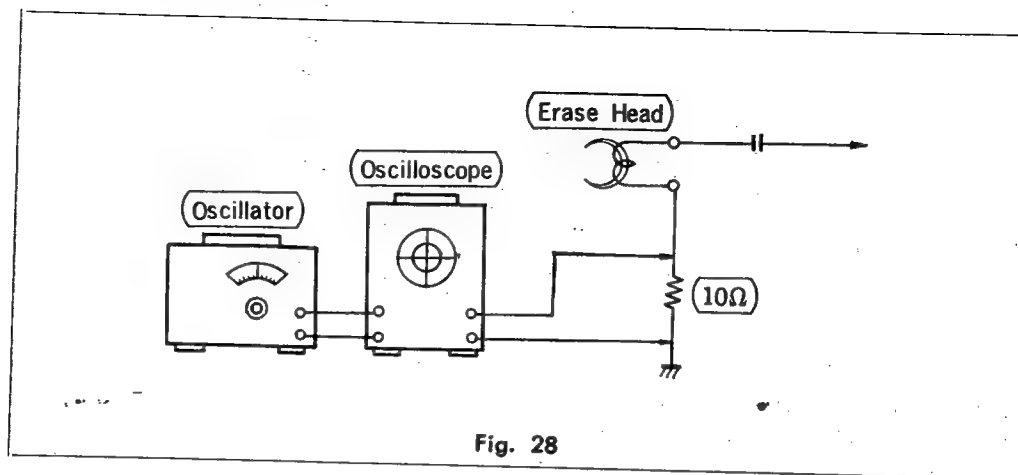


Fig. 28

Take the measurement in the recording mode.

1. Connect the 10Ω Resistor to the Erase Head in series.
2. Measure voltage at both ends of the 10Ω Resistor while comparing it with that of the Standard Oscillator.
3. For comparison, make the Lissajous' wave form in the Oscilloscope Braun Tube.

4. When 40~80 mA current is applied to the Erase Head, the Standard Frequency shall be  $50 \text{ Kc} \pm 5 \text{ Kc}$  in the stereo recording mode. When CH. 1 is in the recording mode and CH. 2 in the playback mode, or when CH. 1 is in the playback mode and CH. 2 in the recording mode, it shall be  $50 \text{ Kc} \pm 6 \text{ Kc}$ .

## BIAS OSCILLATOR CURRENT

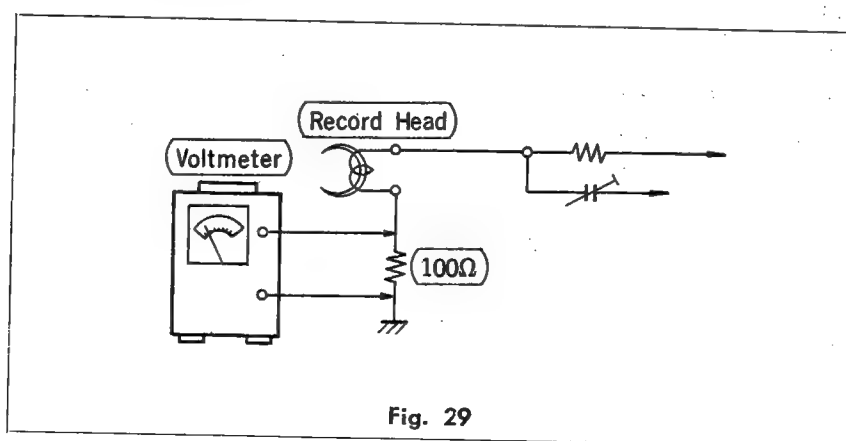


Fig. 29

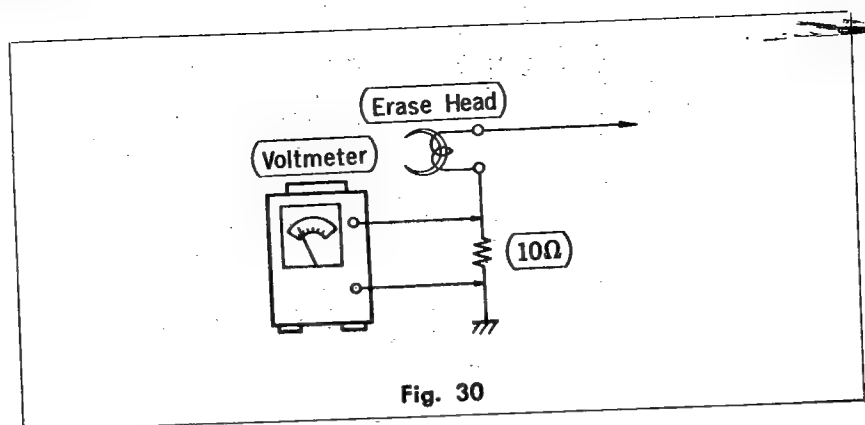
Take the measurement in the recording mode.

1. Connect the 100Ω Resistor to the Record Head in series.
2. Measure voltage at both ends of the 100Ω Resistor and obtain the bias current value.

$$\text{Bias Current} = \frac{\text{Measured Voltage}}{\text{Resistance (100)}}$$

3. The Standard Bias Current Value shall be  $0.5 \text{ mA} \pm 0.05 \text{ mA}$ . But when the adjustment of bias current is required, it shall be more than 0.4 mA.

## ERASING CURRENT



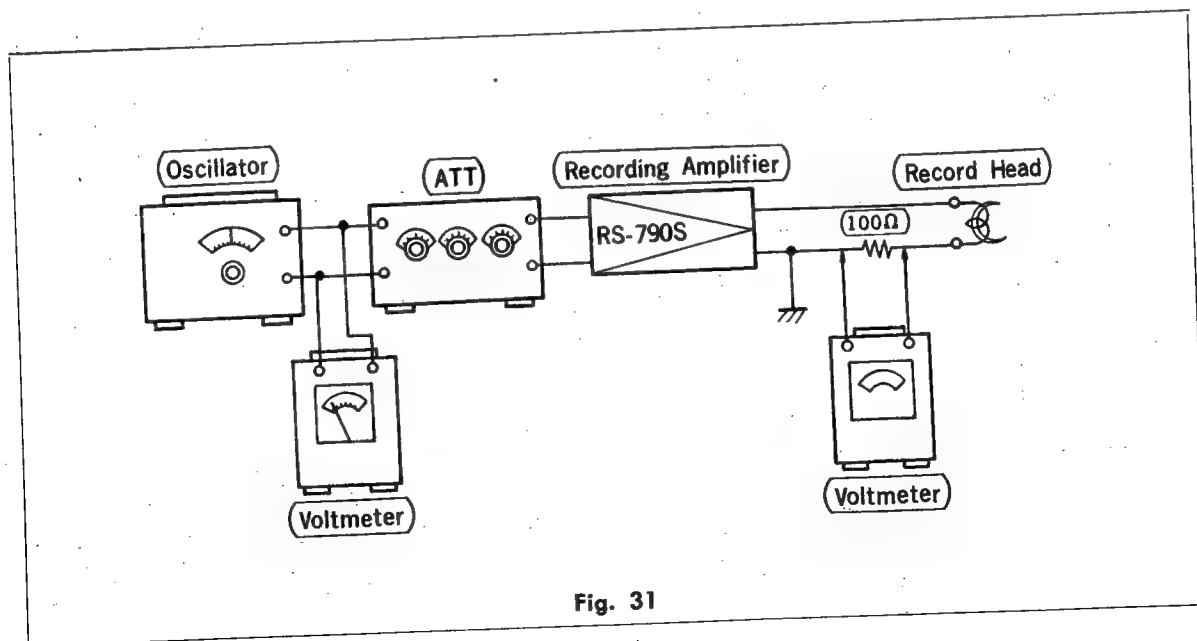
Take the measurement in the recording mode.

1. Connect the  $10\Omega$  Resistor to the Erase Head in series.
2. Measure voltage at both ends of the  $10\Omega$  Resistor, and obtain the current value.

$$\text{Erasing Current} = \frac{\text{Measured Voltage}}{\text{Resistance (10)}}$$

3. The Standard Erasing Current shall be  $60\text{ mA} \pm 20\text{ mA}$ .
4. When taking the measurement with CH. 2 in the recording mode and CH. 1 in the playback mode, remove the Dummy Coil on the earth side, connect the Resistor between the Dummy Coil and the earth, and take the measurement.

## RECORDING LEVEL



1. Place the set into the stereo recording mode, stop the bias oscillation, and adjust the Attenuator so that the recording current becomes  $0.03\text{ mA}$ .
2. Adjust VR9 and VR10 so that the level meter points  $0\text{ VU}$ .
3. The measuring frequency shall be  $1\text{ Kc}$ .



# REPLACEMENT PARTS LIST

**ATTENTION:** Parts which are not listed are part of an assembly and are not stocked as a separate item.

To obtain parts not listed, order the entire assembly.

## RESISTORS

Ref. No.	Description	Part No.
R1, 2 ... ..	Carbon Resistor 100 K $\Omega$ 1/4 W	ERD-14TK104
R3, 4 ... ..	Carbon Resistor 390 $\Omega$ 1/4 W	ERD-14TK391
R5, 6 ... ..	Carbon Resistor 22 K $\Omega$ 1/4 W	ERD-14TK223
R7, 8, 15, 16, 47, 48 ... ..	Carbon Resistor 5.6 K $\Omega$ 1/4 W	ERD-14VK562
R9, 10, 98, 99	Carbon Resistor 10 K $\Omega$ 1/4 W	ERD-14VK103
R11, 12, 94 ...	Carbon Resistor 150 $\Omega$ 1/4 W	ERD-14VK151
R13, 14, 23, 24	Carbon Resistor 2.2 K $\Omega$ 1/4 W	ERD-14VK222
R17, 18 ... ..	Carbon Resistor 12 K $\Omega$ 1/4 W	ERD-14VK123
R19, 20, 29, 30, 91 ... ..	Carbon Resistor 2.7 K $\Omega$ 1/4 W	ERD-14VK272
R21, 22 ... ..	Carbon Resistor 6.8 K $\Omega$ 1/4 W	ERD-14VK682
R25, 26 ... ..	Carbon Resistor 270 K $\Omega$ 1/4 W	ERD-14VK274
R27, 28, 35, 36, 45, 46, 105 ...	Carbon Resistor 4.7 K $\Omega$ 1/4 W	ERD-14VK472
R31, 32 ... ..	Carbon Resistor 1.8 K $\Omega$ 1/4 W	ERD-14VK182
R33, 34 ... ..	Carbon Resistor 27 K $\Omega$ 1/4 W	ERD-14VK273
R37, 38 ... ..	Carbon Resistor 1 K $\Omega$ 1/4 W	ERD-14VK102
R39, 40 ... ..	Carbon Resistor 47 $\Omega$ 1/4 W	ERD-14VK470
R41, 42 ... ..	Carbon Resistor 3.3 K $\Omega$ 1/4 W	ERD-14VK332
R43, 44 ... ..	Carbon Resistor 47 $\Omega$ 1/4 W	ERD-14VK473
R49, 50 ... ..	Carbon Resistor 330 $\Omega$ 1/4 W	ERD-14VK331
R51, 52 ... ..	Carbon Resistor 33 $\Omega$ 1/4 W	ERD-14VK330
R53, 54, 61, 62	Carbon Resistor 270 $\Omega$ 1/4 W	ERD-14VK271
R55, 56, 59, 60	Carbon Resistor 56 $\Omega$ 1/4 W	ERD-14VK560
R57, 58, 63, 64	Carbon Resistor 1.2 K $\Omega$ 1/4 W	ERD-14VK122
R65, 66, 83, 84	Wire-wound Resistor 0.47 $\Omega$ 1/2 W	ERW-12ROR47

Ref. No.	Description	Part No.
R67 ... ..	Carbon Resistor 1.5 K $\Omega$ 1/4 W	ERD-14VK152
R68 ... ..	Carbon Resistor 1.5 K $\Omega$ 1/4 W	ERD-14TK152
R69, 70, 71, 72	Solid Resistor 10 $\Omega$ 1 W	ERC-1GM100
R73, 74 ... ..	Carbon Resistor 120 $\Omega$ 1/4 W	ERD-14TK121
R77 ... ..	Carbon Resistor 560 $\Omega$ 1/4 W	ERD-14VK561
R78 ... ..	Carbon Resistor 560 $\Omega$ 1/4 W	ERD-14TK561
R79, 80 ... ..	Carbon Resistor 1.8 K $\Omega$ 1/4 W	ERD-14TK182
R81, 82 ... ..	Solid Resistor 100 $\Omega$ 1/2 W	ERC-12GM221
R85 ... ..	Carbon Resistor 6.8 K $\Omega$ 1/4 W	ERD-14VK682
R87, 88 ... ..	Carbon Resistor 470 K $\Omega$ 1/4 W	ERD-14VK474
R89, 90 ... ..	Carbon Resistor 100 K $\Omega$ 1/4 W	ERD-14VK104
R92, 93 ... ..	Carbon Resistor 100 $\Omega$ 1/4 W	ERD-14VK101
R95 ... ..	Wire-wound Resistor 1.5 $\Omega$ 1/2 W	ERW-12R1R5
R96 ... ..	Solid Resistor 68 $\Omega$ 1 W	ERC-1GM680
R100, 101 ...	Solid Resistor 180 $\Omega$ 1 W	ERC-1GM181
R102 ... ..	Solid Resistor 270 $\Omega$ 2 W	ERC-2GM271
R103 ... ..	Fuse Resistor 0.1A 8 $\Omega$	ERU-2PC8R0
R104 ... ..	Carbon Resistor 27 $\Omega$ 1/4 W	ERD-14TK270

## VARIABLE RESISTORS

VR1 ... ..	Volume Control	5 K $\Omega$ -A	EVC-B05L30A53
VR2 ... ..	Volume Control	5 K $\Omega$ -A	EVC-B9AL30A53
VR3, 4 ... ..	Tone Control	20 K $\Omega$ -A	EVC-B0GL30A24
VR5, 6, 7, 8 ...	Gain Adjustment	20 K $\Omega$ -B	EVL-S3AA00B24
VR9, 10 ... ..	Level Meter Adjustment	2 K $\Omega$ -B	EVL-T0AA00B23

## CAPACITORS

Ref. No.	Description	Part No.
C1, 2, 5, 6, 21, 22, 25, 26, 29, 30 ...	Electrolytic Capacitor	3 $\mu$ F ECE-A15V3
C3, 4, 19, 20 ...	Electrolytic Capacitor	10 $\mu$ F ECE-A6V10
C7, 8 ...	Electrolytic Capacitor	50 $\mu$ F ECE-A6V50
C9, 10 ...	Mylar Capacitor	0.0015 $\mu$ F ECQ-M05152MZ
C11, 12 ...	Mylar Capacitor	0.022 $\mu$ F ECQ-M05223KZ
C13, 14 ...	Mylar Capacitor	0.0022 $\mu$ F ECQ-M05222MZ
C15, 16 ...	Electrolytic Capacitor	50 $\mu$ F ECE-A15V50
C17, 18 ...	Electrolytic Capacitor	30 $\mu$ F ECE-A6V30
C23, 24 ...	Electrolytic Capabitor	50 $\mu$ F ECE-A6V50
C27, 28 ...	Mylar Capacitor	0.047 $\mu$ F ECQ-M05473MZ
C31, 32 ...	Polystyrene Capacitor	270 PF ECQ-S1271KZ
C33, 34 ...	Electrolytic Capacitor	100 $\mu$ F ECE-A6V100
C35, 36 ...	Electrolytic Capacitor	220 $\mu$ F ECE-A25V220Z
C37, 38, 39, 40	Mylar Capacitor	0.0047 $\mu$ F ECQ-M05472MZ
C41, 42 ...	Electrolytic Capacitor	1000 $\mu$ F ECE-A15V1000
C43, 44 ...	Mylar Capacitor	0.0068 $\mu$ F ECQ-M05682MZ
C45 ...	Mylar Capacitor	0.012 $\mu$ F ECQ-M05123MZ
C47, 48 ...	Mica Capacitor	90 PF QCM-1D900K5
C49, 50 ...	Mica Capacitor	120 PF QCM-1D121K5
C51 ...	Polystyrene Capacitor	1500 PF ECQ-S1152JZ
C52, 53 ...	Mylar Capacitor	0.1 $\mu$ F ECQ-M05104MZ
C54 ...	Electrolytic Capacitor	50 $\mu$ F ECE-A25V50
C55 ...	Electrolytic Capacitor	3000 $\mu$ F ECE-M25R3000B
C56 ...	Motor Capacitor	2 $\mu$ F MP-3000V2 $\mu$
C57 ...	Electrolytic Capacitor	100 $\mu$ F ECE-B250H100
C59, 60 ...	Electrolytic Capacitor	0.5 $\mu$ F ECE-A15V0R5M
C61, 62 ...	Electrolytic Capacitor	30 $\mu$ F ECE-A15V30
C63 ...	Mylar Capacitor	0.1 $\mu$ F ECQ-M1104M
C64, 65 ...	Mylar Capacitor	0.01 $\mu$ F -
C66, 67, 68 ...	Paper Capacitor	0.1 $\mu$ F ECN-R4104M
C69, 70 ...	Mylar Capacitor	0.01 $\mu$ F -

## VARIABLE CAPACITORS

VC1, 2, 3, 4 ...	Trimmer Capacitor	QCV-2013-1
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## TRANSISTORS

Ref. No.	Description	Part No.
Tr1, 2, 7, 8 ...	Transistor	2SB 346
Tr3, 4, 5, 6 ...	Transistor	2SB 175A
Tr9, 10, 11, 12	Transister	2SB 473
Tr13, 14 ...	Transistor	2SB 324

## DIODE & RECTIFIERS

D1, 2 ...	Diode	OA 70
D3 ...	Silicon Rectifier	FR-1M
D4 ...	Selenuim Rectifier	25F

## THERMISTORS

TH1, 2, 3, 4 ...	Thermistor	QVM-300A
TH5 ...	Thermistor	QVM-800B

## COIL

L1 ...	Erase Head Dummy Coil	QLH-9007
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## TRANSFORMERS

T1, 2 ...	Input Transformer	QLA-0118-1
T3, 4 ...	Recording Transformer	QLA-0337
T5 ...	Oscillator Transformer	QLB-0128
T6 ...	Power Transformer	QLP-0406

## SWITCHES

S1, 2 ...	Record/Playback Selector Switch	QSS-1021
S3 ...	Forward/Reverse Head Selector Switch	QSS-1008
S4 ...	Speed Selector Switch	ESD-1130
S5 ...	Stereo/Monaural Selector Switch	QSS-1013
S6 ...	Stop Switch	QSS-1043
S9 ...	Speaker ON/OFF Switch	QSS-1035
S11 ...	Automatic Shut-off Switch	QSM-0016
S12 ...	Motor Selector Switch	QSS-1045
S14 ...	Plunger Switch	QSM-0014
S16 ...	Recording Automatic Stop Switch	QSB-0154
S17 ...	FF and Rewind Prevten Switch	QSB-122

Ref. No.	Description	Part No.
S18 ... ..	Reverse Prevent Switch	QSB-154
S19 ... ..	Gain Adjustment Switch	QSS-1043
S21 ... ..	Reverse Switch	QSB-0162
S22 ... ..	Forward Switch	QSB-0157

### ELECTRICAL PARTS

1 ... ..	VU Meter-Left	QSL-0028
2 ... ..	VU Meter-Righh	QSL-0029
3 ... ..	Record/Playback Head	WY-411W
4 ... ..	Erase Head	WY-504X
5 ... ..	Relay	QSK-0110
6 ... ..	Speaker	EAS-18D28SB
7 ... ..	7-P MT Molded Socket	QJS-701
8 ... ..	7-P Plug (M)	QJP-0921
9 ... ..	RCA Pin Jack	QJA-902
10 ... ..	Muniature Jack (M3-B)	QJA-104-1
10-1 ... ..	Nut for Muniature Jack	QNQ-1006
10-2 ... ..	Washer for Muniature Jack	QWQ-1046
11 ... ..	Headphone Jack	QJA-0216
11-1 ... ..	Nut for Headphone Jack	QWQ-1035
12 ... ..	Pilot Lamp Sock	QJS-101-1
13 ... ..	Pilot Lamp	QVL-101
14 ... ..	Pilot Lamp Cover	QTV-1025
15 ... ..	Pilot Lamp Cover	QTV-1010
16 ... ..	AC Power Cord	QFC-1016F
17 ... ..	HEYCO Bushing	QTD-1129
18 ... ..	Heat Sink	QTH-1028
19 ... ..	Circuit Board Assembly (main)	
20 ... ..	Circuit Board Assembly (equalization)	
21 ... ..	Circuit Board Assembly (head selector)	
22 ... ..	Circuit Board Assembly (gain adjustment)	
23 ... ..	2-P Lug Board	QET-1051
24 ... ..	Lug Board with Wire	QEE-1077
25 ... ..	Lug Board with Wire	QEE-1078
26 ... ..	4-P Lug Board	QJT-4001-1
27 ... ..	3-P Lug Board	QJT-3003-1
28 ... ..	2-P Lug Board	QJT-2003-1

Ref. No.	Description	Part No.
29 ... ..	5-P Lug Board	QJT-5002
30 ... ..	4-P Lug Board	QJT-4002
31 ... ..	Wire Spring	QTD-1121
32 ... ..	Wire Crimper-A	QTD-1002
33 ... ..	Wire Crimper-D	QTD-1005
34 ... ..	Shield Plate	QTS-1079
35 ... ..	Lug Terminal	QJT-0015
36 ... ..	AC Power Middle Terminal	QBK-1053-1
37 ... ..	Nut for Volume Control	QNG-1004
38 ... ..	Washer for Volume Control	QWQ-1008
39 ... ..	Spring Washer for Volume Control	QWQ-2002
40 ... ..	Recording Lever Angle	QMA-1206
41 ... ..	Recording Lock Plate	QMF-1205
42 ... ..	Recording Lever-1	QML-1419
43 ... ..	Recording Lever-2	QML-1420
44 ... ..	Recording Slide Plate	QML-1421
45 ... ..	Recording Lock Plate Guide	QMA-1205
46 ... ..	Switch Off Lever	QML-1422
47 ... ..	Recording Switch Arm-1	QML-1423
48 ... ..	Recording Switch Arm-2	QML-1424
49 ... ..	Spring Hanger	QMA-1170
50 ... ..	Pin (1.6 $\phi$ x 8)	QNP-116 x 8U3
51 ... ..	Recording Lever Shaft	QMS-1318
52 ... ..	Recording Arm Shaft	QMS-1319
53 ... ..	Pin	QMN-1173
54 ... ..	Fiber Plate	QBK-1081
55 ... ..	Recording Arm Spring-1 Assembly	QXJ-0060
56 ... ..	Recording Arm Spring-2 Assembly	QXJ-0061
57 ... ..	Recording Lever Spring	QBT-1259
58 ... ..	Recording Slide Spring Assembly	QXJ-0062
59 ... ..	Cord Holder	QTD-1155
60 ... ..	Leaf Switch Holding Plate	QMA-1207
61 ... ..	Front Angle	QTT-1422
62 ... ..	Left Jack Angle	QTT-1423
63 ... ..	Right Jack Angle	QTT-1424
64 ... ..	Circuit Board Angle-A	QTT-1379
65 ... ..	Circuit Board Angle-B	QTT-3480

Ref. No.	Description	Part No.
66 ... ..	Circuit Board Angle-C	QTT-1425
67 ... ..	Circuit Board Angle-D	QTT-1426
68 ... ..	Trimmer Angle	QTT-1427
69 ... ..	Circuit Board Retainer	QTT-1428
70 ... ..	Transformer Angle	QTT-1429
71 ... ..	Heat Sink	QTH-1036
72 ... ..	Cord Retainer	QTT-1430
73 ... ..	Capacitor Angle	QTT-1431
74 ... ..	Capacitor Band	QTT-1434
75 ... ..	Protection Cover	QTS-1099
76 ... ..	Relay Holding Plate	QBJ-1232
77 ... ..	Capacitor Cover	QBK-1080
78 ... ..	Pilot Lamp Holding Stand-Right	QTT-1432
79 ... ..	Pilot Lamp Holding Stand-Left	QTT-1433
80 ... ..	Jack Plate-Right	QGJ-1085
81 ... ..	Jack Plate-Left	QGJ-1096
82 ... ..	Jack Indication Plate-Right	QGS-2130
83 ... ..	Jack Indication Plate-Left	QGS-2131
84 ... ..	Angle for Cord Bushing	QTT-1314

## MECHANICAL PARTS

101 ... ..	Motor Base Plate Assembly	QXK-1096
102 ... ..	Speed Selector Shaft Angle Assembly	QXE-0021
102-1 ... ..	Speed Selector Shaft Angle	QMA-1187
102-2 ... ..	Boss	QMN-1180
102-3 ... ..	Speed Selector Lever	QML-1413
102-4 ... ..	Stop Ring E5φ	QNS-504T3
102-5 ... ..	Click Spring	QBP-1092
102-6 ... ..	Thrust Ball	QDK-1003
103 ... ..	Spring Washer SW3φ	QWS-302U3
104 ... ..	Screw +M3φ×6	QHM-230×6U3
105 ... ..	Motor Pulley-1 Assembly	QXP-0184
106 ... ..	Small Screw	QHP-840×6U3
107 ... ..	Motor Pulley-2	QDP-1178
108 ... ..	Small Screw	QHP-840×6U3
109 ... ..	Belt Shifter Stopper	QMA-1186
110 ... ..	Spring Washer SW3φ	QWS-302U3

Ref. No.	Description	Part No.
111 ... ..	Screw +M3φ×4	QHM-230×4U3
112 ... ..	Belt Shifter	QMF-1192
113 ... ..	Belt Shifter Bushing	QBJ-1206
114 ... ..	Spring Washer SW3φ	QWS-302U3
115 ... ..	Screw +M3φ×12	QHM-230×12U3
116 ... ..	Pin (4G-37-M3)	QMN-1178
117 ... ..	Spring Washer SW3φ	QWS-302U3
118 ... ..	Nut N3φ	QMN-3022U3
119 ... ..	Equalizer Switch Lever	QML-1400
120 ... ..	Switch Spring Plate	QBP-1124
121 ... ..	Aluminium Rivet 2φ×3	QHM-720×30B4
122 ... ..	Equalizer Switch Spring	QBT-1249
123 ... ..	Fiber Washer (5.2×10×0.5)	QBK-7027
124 ... ..	Stop Ring E4φ	QNS-404T3
125 ... ..	Spring Washer SW4φ	QWS-402U3
126 ... ..	Screw +M4φ×6	QHM-230×4U3
127 ... ..	Fiber Washer	MP-300V2μ
128 ... ..	Motor Capacitor	4KC-20BPL
129 ... ..	Motor	WY-411W
130 ... ..	Record/Playback Head	WY-504X
131 ... ..	Erase Head	QBJ-1216
132 ... ..	Erase Head Spacer	QBJ-1215
133 ... ..	R/P Head Spacer	
134 ... ..	R/P Head Pad Plate-Right Assembly	QAP-1016
134-1 ... ..	Pad Felt	QAP-1127
135 ... ..	R/P Head Pad Shaft	QAP-1111
136 ... ..	R/P Head Pad Plate-2	QAP-1018
137 ... ..	R/P Head Pad Spring	
138 ... ..	R/P Head Pad Plate-Left Assembly	QAP-1153
139 ... ..	Erase Head Pad Plate-Right	QAP-1013
140 ... ..	Erase Head Pad Shaft	QAP-1018
141 ... ..	R/P Head Pad Spring	QAP-1152
142 ... ..	Erase Head Pad Plate-Left	QKT-1225
143 ... ..	R/P Head Holding Plate	QKT-1226
144 ... ..	Erase Head Holding Plate	QWG-202K3
145 ... ..	Lock Washer	QHN-120×3U3
146 ... ..	Screw 2φ×3	

Ref. No.	Description	Part No.
147 ... ..	Screw +M3 $\phi$ ×6	QHM-230×6U3
148 ... ..	Screw +S3 $\phi$ ×8	QHS-230×8U3
149 ... ..	Spring Washer SW2 $\phi$	QWS-202U3
150 ... ..	Screw -2 $\phi$ ×5	QHN-120×5U3
151 ... ..	Head Spring Plate	QBP-1126
152 ... ..	Tape Guide Pole-C	QAG-1126
153 ... ..	Tape Guide Spring	QBC-1087
154 ... ..	Tape Guide Washer	QWQ-1085
155 ... ..	Limiter	QAG-1107
156 ... ..	Nut N2.6 $\phi$	QNN-2622C1
157 ... ..	Spring Washer SW2.6 $\phi$	QWS-262U3
158 ... ..	Nut N2.6 $\phi$	QNN-2622U3
159 ... ..	Tape Retainer-Left	QMA-1189
160 ... ..	Screw +M2.6 $\phi$ ×12	QHM-266×12C1
161 ... ..	Tape Retainer-Right	QMA-1188
162 ... ..	Contact Pole	QMP-1126
163 ... ..	Contact Lug	QJT-1003
164 ... ..	Lock Washer 2.6 $\phi$	QWG-262K3
165 ... ..	Nut N2.6 $\phi$	QNN-2622U3
166 ... ..	Screw -PH2.6 $\phi$ ×14	QHN-126×14U3
167 ... ..	Spring Washer SW2.6 $\phi$	QWS-262U3
168 ... ..	Automatic Shut-Off Switch	QSM-0016
169 ... ..	Switch Holding Plate	QMF-1201
170 ... ..	Lock Washer 3 $\phi$	QWG-302K3
171 ... ..	Screw -PH3 $\phi$ ×5	QHN-130×5U3
172 ... ..	Fiber Washer 5.2×10×0.25	QBK-7085
173 ... ..	Stop Ring E4 $\phi$	QNS-404T3
174 ... ..	Shut-Off Switch Pin	QMN-1171
175 ... ..	Balance Weight	QMN-1181
176 ... ..	Lock Washer 3 $\phi$	QWG-302K3
177 ... ..	Screw ×M3 $\phi$ ×6	QHM-230×6U3
178 ... ..	Panel Angle-Left	QMA-1209
179 ... ..	Spring Washer SW3 $\phi$	QWS-302U3
180 ... ..	Panel Angle-Right	QMA-1208
181 ... ..	Head Switch Arm	QML-1392
182 ... ..	Fiber Washer 5.2×10×0.25	QBK-7085
183 ... ..	Stop Ring E4 $\phi$	QNS-404T3

Ref. No.	Description	Part No.
184 ... ..	Tape Shifter Lever-1	QML-1401
185 ... ..	Fiber Washer 4.2×9×0.25	QBK-7007
186 ... ..	Stop Ring E3 $\phi$	QNS-304T3
187 ... ..	Tape Shifter Lever-2	QML-1402
188 ... ..	Tape Shifter Holding Plate Assembly	
189 ... ..	Tape Shifter Assembly	
189-1 ... ..	Tape Shifter	QAS-1035
189-2 ... ..	Pad Shifter	QAS-1036
189-3 ... ..	Rivet 2 $\phi$ ×3	QHM-720×30B4
190 ... ..	Spring Washer SW3 $\phi$	QWS-302U3
191 ... ..	Screw +M3 $\phi$ ×4	QHM-230×4U3
192 ... ..	Tape Shifter Spring	
193 ... ..	Reel Table Assembly	QXP-0185
193-1 ... ..	Reel Upper Plate	QMF-1159
193-2 ... ..	Reel Table	QDR-1041
193-3 ... ..	Reel Table Felt-2	QBF-1118
193-4 ... ..	Reel Table Pulley-1	QDP-1169
193-5 ... ..	Reel Table Spring	QMF-1178
193-6 ... ..	Polyethylene Slider	QBJ-3042
193-7 ... ..	Pulley Pressure Spring	QBC-1082-1
193-8 ... ..	Fiber Washer 6.2×11×0.5	QBK-7056
193-9 ... ..	Stop Ring E5 $\phi$	QNS-504T3
193-10 ... ..	Reel Table Slip Felt	QBF-1117
193-11 ... ..	Reel Table Felt-3	QBF-1119
193-12 ... ..	Reel Table Pulley-2	QDP-1170
193-13 ... ..	Friction Spring	QBP-1123
194 ... ..	Idler Lever Assembly	QXL-0144
195 ... ..	Fiber Washer 6.2×11×0.5	QBK-7008
196 ... ..	Stop Ring E5 $\phi$	QNS-504T3
197 ... ..	Idler Lever Spring	QBT-1247
198 ... ..	Idler Arm Assembly	QXA-0066
199 ... ..	Fiber Washer 4.2×9×0.25	QBK-7007
200 ... ..	Idler	
201 ... ..	Idler Felt	QBF-1121
202 ... ..	Idler Washer	QWQ-1023
203 ... ..	Fiber Washer 4.2×6×0.25	QBK-7075
204 ... ..	Stop Ring E3 $\phi$	QNS-304T3

Ref. No.	Description	Part No.
205 ... ..	Idler Operating Belt-1	QDB-1079
206 ... ..	Idler Operating Belt-2	QDB-1080
207 ... ..	Operating Belt Spring	QBT-1246
208 ... ..	Idler Moveing Lever Assembly	QXL-0149
209 ... ..	Stop Ring E10φ	QNS-1004T3
210 ... ..	FF Lever Angle	QMA-1191
211 ... ..	Tapping Screw 3φ×6	QHB-530×6U3
212 ... ..	Leaf Switch Lever Assembly	QXL-0146
213 ... ..	Switch Lever Spring Assembly	QXJ-0059
214 ... ..	Fiber Washer 5.2×10×0.5	QBK-7027
215 ... ..	Stop Ring E4φ	QNS-404T3
216 ... ..	Brake Shoe	QBG-1134
217 ... ..	Brake Lever-Left	QML-1404
218 ... ..	Brake Lever Spring	QBT-1251
219 ... ..	Stop Ring E5φ	QNS-504T3
220 ... ..	Brake Lever-Right	QML-1405
221 ... ..	Brake Rod-1	QMR-1070
222 ... ..	Shatter Proof Spring	QBT-1243
223 ... ..	Brake Rod-2	QMR-1071
224 ... ..	Fiber Washer 6.2×11×0.5	QBK-7003
225 ... ..	Fiber Washer 12.3×20×0.5	QBK-7087
226 ... ..	Screw +M3φ×4	QHM-230×4U3
227 ... ..	Lock Washer 3φ	QWG-302N3
228 ... ..	Pause Rod Adjustment Plate	QMF-1202
229 ... ..	Stop Ring E4φ	QNS-404T3
230 ... ..	Fiber Washer 5.2×10×0.25	QBK-7085
231 ... ..	Pause Rod Lever	QML-1415
232 ... ..	Motor Switch Arm	QML-1409
233 ... ..	Stop Ring E3φ	QNS-304T3
234 ... ..	Stop Ring E4φ	QNS-404T3
235 ... ..	Fiber Washer 5.2×10×0.5	QBK-7085
236 ... ..	Switch Spring Plate	QBP-1124
237 ... ..	Aluminium Rivet 2φ×3	QHM-720×30B4
238 ... ..	Capstan Holding Nut	QNQ-1015
239 ... ..	Panel Washer	QBJ-3035
240 ... ..	60 c/s Capstan Sleeve (C-marked Motor)	QMS-1316
	60 c/s Capstan Sleeve (No-marked Motor)	QMS-1258

Ref. No.	Description	Part No.
	60 c/s Capstan Sleeve (A-marked Motor)	QMS-1317
241 ... ..	Stop Ring E5φ	QNS-504T3
242 ... ..	Polyethylene Slider 6.2×12.4×0.25	QBJ-1205
243 ... ..	Felt for Pressure Roller	QBF-1022
244 ... ..	Capstan Shaft Retainer	QYQ-0068
245 ... ..	Screw +M4φ×8	QHM-240×8U3
246 ... ..	Spring Washer SW4φ	QWS-402U3
247 ... ..	Polyethylene Slider	QBJ-3042
248 ... ..	Brake Rod Lever	QML-1398
249 ... ..	Fiber Washer 4.2×9×0.25	QBK-7007
250 ... ..	Stop Ring E3φ	QNS-304T3
251 ... ..	Tape Counter	QDC-0019
252 ... ..	Tape Counter Angle	QMA-1193
253 ... ..	Spring Washer 3φ	QWS-302U3
254 ... ..	Screw +M3φ×4	QHM-230×4U3
255 ... ..	Brake Off Lever Assembly	QXL-0147
255-1 ... ..	Stop Ring E3φ	QNS-304T3
255-2 ... ..	Roller	QDP-1183
256 ... ..	Fiber Washer 6.2×11×0.5	QBK-7003
257 ... ..	Stop Ring E5φ	QNS-504T3
258 ... ..	Brake Rod Spring	QBT-1248
259 ... ..	Recording Lock Spring	QBT-1190
260 ... ..	Shut-Off Lever-1	QML-1407
261 ... ..	Click Arm	QML-1412
262 ... ..	Stop Ring E5φ	QNS-504T3
263 ... ..	Click Roller	QDP-1184
264 ... ..	Click Spring Assembly	QXJ-0058
265 ... ..	Cam Assembly	QHH-0022
266 ... ..	Stop Ring E5φ	QNS-504T3
267 ... ..	Fiber Washer 6.2×11×0.25	QBK-7003
268 ... ..	Pause Lever	QML-1416
269 ... ..	Stop Ring E5φ	QNS-504T3
270 ... ..	Pause Guide Plate Assembly	QXH-0025
271 ... ..	Tapping Screw 3φ×6	QHB-530×6U3
272 ... ..	Pause Lever	QML-1414
273 ... ..	Pause Spring	QBN-1038
274 ... ..	Stop Ring E5φ	QNS-504T3

Ref. No.	Description	Part No.
275 ... ..	Fiber Washer 6.2×8.2×1.0	QBK-7014
276 ... ..	Slide Plate Assembly	QXH-0024
276-1 ... ..	Pressure Roller Spring Assembly	QXJ-0055
277 ... ..	Stop Ring E5φ	QNS-504T3
278 ... ..	Fiber Washer 6.2×11×0.25	QBK-7056
279 ... ..	Spring Washer SW4φ	QWS-402U3
280 ... ..	Nut N4φ	QNN-4022U3
281 ... ..	Roller	QDP-1183
282 ... ..	Stop Ring E3φ	QNS-304T3
283 ... ..	Fiber Washer 6.2×8.2×0.5	QBK-7013
284 ... ..	Pressure Roller Shaft	QMS-1296
285 ... ..	Pressure Roller Lever-Left	QML-1388
286 ... ..	Pressure Roller Lever-Right	QML-1389
287 ... ..	Stop Ring E5φ	QNS-504T3
288 ... ..	Pressure Roller Restoring Spring Assembly	QXJ-0056
289 ... ..	Pressure Roller Lever Shaft	QMN-1177
290 ... ..	Spring Washer SW4φ	QWS-402U3
291 ... ..	Nut N4φ	QNN-4022U3
292 ... ..	Reel Table Shaft Retainer	QYQ-0067
293 ... ..	Spring Washer SW3φ	QWS-302U3
294 ... ..	Screw +M3φ×6	QHM-230×6U3
295 ... ..	Backtension Washer	QBJ-3015
296 ... ..	Backtension Spring	QBC-1064
297 ... ..	Fiber Washer 6.2×12×1.0	QBK-7040
298 ... ..	Stop Ring E5φ	QNS-504T3
299 ... ..	Tape Counter Pulley	QDP-1181
300 ... ..	Screw +M4φ×8	QHM-240×8U3
301 ... ..	Mechanism Base Plate Foot (F-L)	QMA-1197
302 ... ..	Mechanism Base Plate Foot (B-L)	QMA-1199
303 ... ..	Mechanism Base Plate Foot (B-R)	QMA-1200
304 ... ..	Mechanism Base Plate Foot (F-R)	QMA-1198
305 ... ..	Tapping Screw 4φ×8	QHB-540×8U3
306 ... ..	Screw +M4φ×5	QHM-240×5U3
307 ... ..	Spring Washer SW4φ	QWS-402U3
308 ... ..	Mechanism Base Plate Assembly	
309 ... ..	Polythylene Slider	QBJ-3042
310 ... ..	Fiber Washer 6.2×8.2×1.0	QBK-7014

Ref. No.	Description	Part No.
311 ... ..	Spring Hook	QMF-1197
312 ... ..	Tapping Screw +3φ×6	QHB-530×6U3
313 ... ..	Brake Lever Spring	QBT-1251
314 ... ..	Switch Holding Plate-2	QMA-1192
315 ... ..	Plunger Switch	QSM-0014
316 ... ..	Spring Washer SW2.6φ	QWS-262U3
317 ... ..	Screw -PH2.6φ×14	QHN-126×14U3
318 ... ..	Plunger Lever Assembly	QXL-0148
319 ... ..	Stop Ring E5φ	QNS-504T3
320 ... ..	Plunger Lever Spring Assembly	QXJ-0065
321 ... ..	Adjustment Plate Assembly	QXH-0026
322 ... ..	Lock Washer 3φ	QWG-302U3
323 ... ..	Screw +M3φ×4	QHM-230×4U3
324 ... ..	F. W. Brake Arm	QML-1411
325 ... ..	Fiber Washer 4.2×9×0.25	QBK-7007
326 ... ..	Stop Ring E3φ	QNS-304T3
327 ... ..	Fiber Washer 5.2×10×0.5	QBK-7027
328 ... ..	Stop Ring E4φ	QNS-404T3
329 ... ..	Fiber Washer 6.2×11×0.25	QBK-7056
330 ... ..	Recording Lever Arm Assembly	QXA-0067
331 ... ..	Fiber Washer 5.2×10×0.25	QBK-7085
332 ... ..	Stop Ring E4φ	QNS-404T3
333 ... ..	Play Lever Assembly	QXL-0150
333-1 ... ..	Cam Roller	QDP-1126
333-2 ... ..	Stop Ring E4φ	QNS-404T3
334 ... ..	Play Lever Spring Assembly	QXJ-0057
335 ... ..	Pause Knob Spring	QBN-1038
336 ... ..	Fiber Washer 6.2×11×0.5	QBK-7003
337 ... ..	Play Lever Shaft	QMS-1301
338 ... ..	Screw +M3φ×20	QHM-230×20U3
339 ... ..	F. W. Brake Plate Spring	QBP-1128
340 ... ..	F. W. Brake Lever Assembly	QXL-0146
341 ... ..	F. W. Brake Spring	QBT-1253
342 ... ..	Fiber Washer	QBK-7039
343 ... ..	F. W. Brake Boss	QMM-1127
344 ... ..	F. W. Brake Roller	QBG-1135
345 ... ..	Spring Holding Washer	QWQ-1070



Ref. No.	Description	Part No.
346	Brake Roller Spring	QBC-1051
347	Nut	QNN-3022U3
348	Fiber Washer 6.2×11×0.5	QBK-7003
349	Stop Ring E5φ	QNS-504T3
350	Flywheel Spring	QBC-1088
351	Flywheel Assembly	QXF-0035
352	Thrust Ball	QDK-1006
353	Ball Retainer	QMD-1004-2
354	Flywheel Retainer	QMA-1195
355	Spring Washer SW4φ	QWS-402U3
356	Screw +M4φ×8	QHM-240×8U3
357	Stop Switch Lever	QML-1408
358	Fiber Washer 5.2×10×0.15	QBK-7085
359	Stop Ring E4φ	QNS-404T3
360	FF Lever	QML-1403
361	FF Lever Plate Spring	QBP-1125
362	Copper Rivet	QHM-762×30B2
363	FF Lever Shaft	QMS-1306
364	Stop Ring E3φ	QNS-304T3
365	Idle Off Lever	QML-1394
366	Fiber Washer 6.2×11×0.5	QBK-7003
367	Stop Ring E5φ	QNS-504T3
368	Plunger	QME-0111
369	Pin 1.6φ×8	QNP-116×8U3
370	Spring Washer SW4φ	QWS-402U3
371	Screw +M4φ×4	QHM-240×6U3
372	Screw +MS3φ×6	QHV-230×6C1
373	Pressure Roller Cover	QBF-1022
374	Felt for Pressure Roller	QDP-1129-1
375	Pressure Roller	

### CABINET PARTS

401	Panel Assembly	QYP-0116
401-1	Screw	QHN-220×5U3
401-2	Amp. Panel	QGP-1076
401-3	Lamp Cover	QBJ-1235
401-4	Spring Washer SW4φ	QWS-402U3

Ref. No.	Description	Part No.
401-5	Nut N4φ	QNN-4022U3
401-6	Panel	QGP-1075
401-7	Hinge-E	QKC-1050
401-8	Speed Indicator Plate	QGS-2134
401-9	Panel Ornament	Q GK-1164
401-10	Nut N3φ	QNN-3022U3
401-11	Spring Washer SW3φ	QWS-302U3
401-12	F/R Selector Button Spring	QBP-1130
401-13	F/R Selector Button Metal	QKT-1243
401-14	Forward, Reverse Selector Button	QGO-1040
401-15	Tapping Screw	QHB-530×6U3
401-16	Lid Spring	QBP-1131
401-17	Panel Cover-B	QBJ-1089
401-18	Panel Cover	QBJ-1237
401-19	Guide Pole	QMP-1135
401-20	Screw	QHS-230×10U3
401-21	Nut N2.6φ	QNN-2622U3
401-22	Spring Washer SW2.6φ	QWS-262U3
402	Body Case Assembly	QYB-0125
402-1	Handle	QYH-0019
402-2	Handle Ornament	Q GK-1252
402-3	Screw	QHV-226×8V1
402-4	Handle Plate	QGB-1206
402-5	Handle Cover	QKT-1242
402-6	Collar	
402-7	Handle Metal	QKT-1240
402-8	Handle Wadding	QBG-1133
402-9	Handle Retainer	QBJ-1231
402-10	Reinforce Plate	QKT-1241
402-11	Body-Case	QKM-1065
402-12	Spring Washer SW4φ	QWS-402U3
402-13	Screw PH4φ×8	QHN-240×8U3
402-14	Screw PH4φ×20	QHN-240×20U3
402-15	Speaker Holding Rubber	QBG-1107
402-16	Speaker Holding Metal	QKT-1248
402-17	Nut N4φ	
402-18	Speaker	

Ref. No.	Description	Part No.
402-19	... .. Rubber Foot	QKA-1046
402-20	... .. Speaker Net	QKN-1033
402-21	... .. Ornament Grille-A	QKG-1249
402-22	... .. Screw	QHN-220×4V1
402-23	... .. Hinge-A	QKC-1046
402-24	... .. Stay Stopper	QBG-1141
402-25	... .. Tapping Screw	QHB-530×6V3
402-26	... .. Grille-Right	QKG-1015
402-27	... .. Tapping Screw	QHB-530×12V3
402-29	... .. Hinge-D	QKC-1049
402-30	... .. Reflector Stay-Right	QKT-1244
402-31	... .. Tapping Screw	QHB-530×12V3
402-32	... .. Ornament Grille-B	QKG-1250
402-33	... .. Reflector-Right	QBJ-1229
402-34	... .. Panel Holding Rubber	QBG-1138
402-35	... .. Stay Rubber	QBG-1140
402-36	... .. Accessories Compartment Lid	QKD-1072
402-37	... .. Lib Knob	QGT-3012
402-38	... .. Lid Lock Spring	QBP-1086
402-39	... .. Tapping Screw 2φ×5	QHB-520×4V3
402-40	... .. Washer W2φ	QWP-2012N1
402-41	... .. Tapping Screw	QHB-530×10V3
402-42	... .. Grille-Left	QKG-1016
402-43	... .. Reflector Stay-Left	QKT-1247
402-44	... .. Reflector-Left	QBJ-1230
402-45	... .. Hinge-B	QKC-1047
402-46	... .. Hinge-C	QKC-1048
403	... .. Upper Lid Assembly	QYA-0069
403-1	... .. Upper Lid	QKF-1048
403-2	... .. Lid Name Plate	QGB-1208
403-3	... .. Hinge-F	QKC-1051
403-4	... .. PANASONIC Mark	QGN-1031
403-5	... .. Screw	QHN-220×4CL1
404	... .. Head Cover Assembly	QYR-0080
405	... .. Mount Assembly	QYM-0047
406	... .. Function Knob Assembly	QYT-0068
406-1	... .. Function Knob	QGT-2042

Ref. No.	Description	Part No.
406-2	... .. Function Knob Ornament	QKG-1256
406-3	... .. Screw	QHQ-1097
407	... .. Speed Selector Knob Assembly	QGT-2114
408	... .. Volume Control Knob	QGT-1070
409	... .. Record Button	QGG-1041
410	... .. Cue Knob	QGT-2044
411	... .. Rubber Foot	QKA-1042
412	... .. VU Meter Holding Felt	QBF-1127
413	... .. Screw	QHN-240×12CL1
414	... .. Screw	QHN-230×12U3
415	... .. Washer	QWP-3012N1
416	... .. Screw	QHN-240×20CL1
417	... .. Washer	QBJ-3048
418	... .. Record Button	QGO-1041
419	... .. Cue Knob	QGT-2044

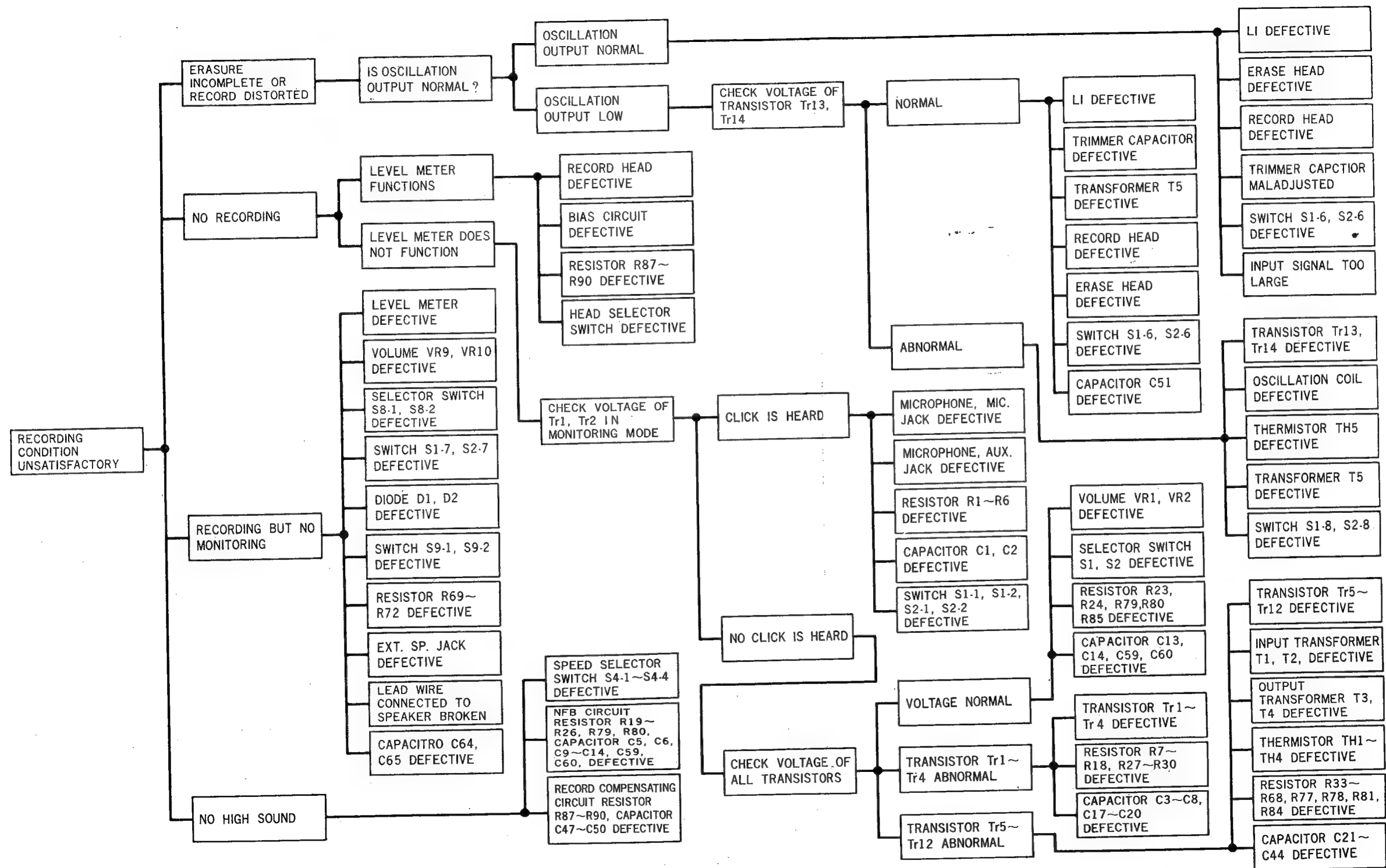
### ACCESSORIES

431	... .. 7" Recording Tape	QFT-71PZ
432	... .. 7" Empty Reel	QFR-71PZ
433	... .. Dynamic Microphone	WM-2057P
435	... .. Microphone Stand	WN-115P
435	... .. Reel Holder	QBG-1030-1
436	... .. Connection Cord-C	QEB-14P-1
437	... .. Sensing Hoil	QFS-0004
438	... .. Splicing Tape	QFS-2-1
439	... .. Instruction Book	

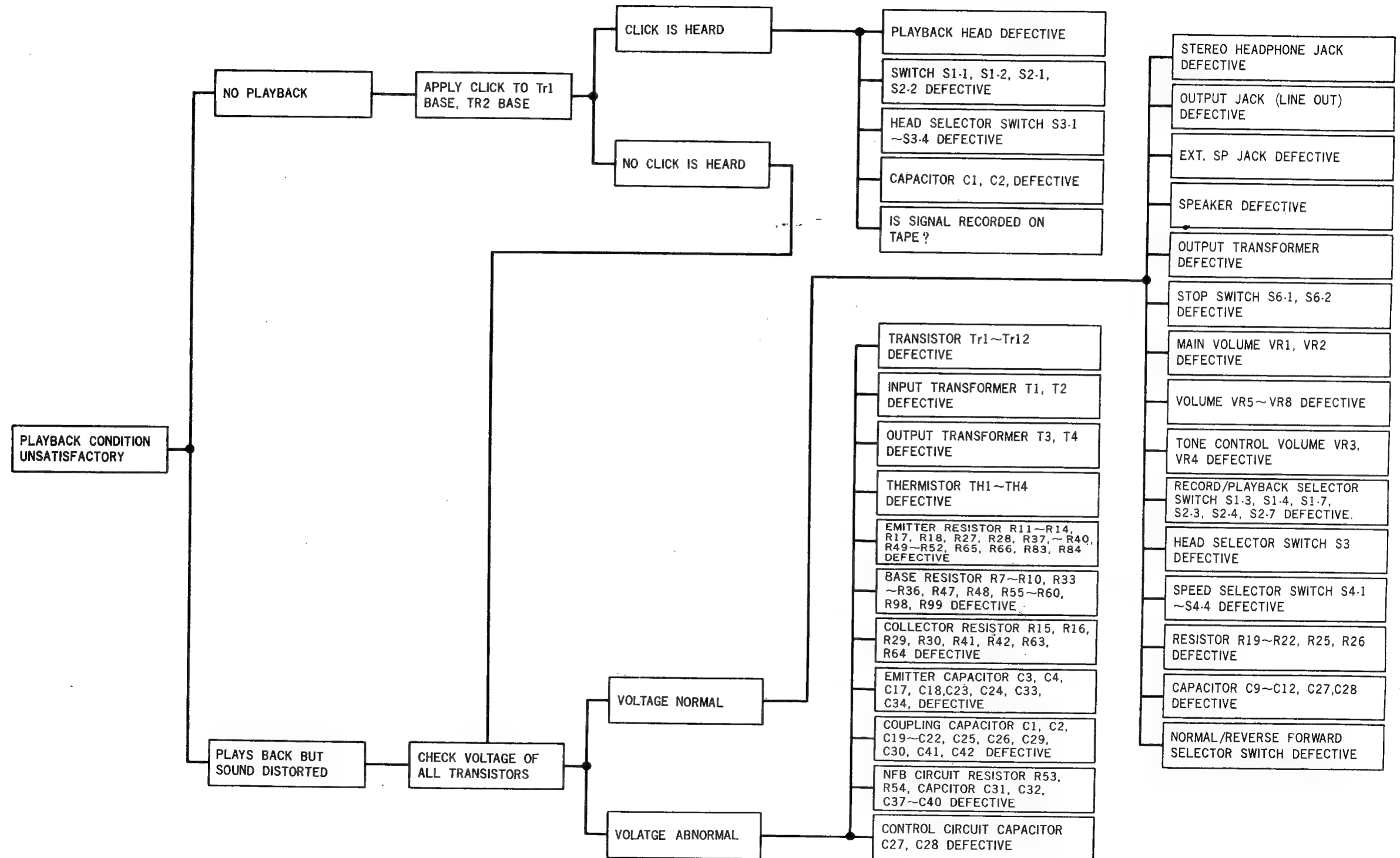
### PACKINGS

451	... .. Packing Case	QPN-1651
452	... .. Inner Cushion-A	QPN-1652
453	... .. Inner Cushion-B	QPN-1653
454	... .. Dust Cover	QFD-0089
455	... .. Inner Cushion-C	QPN-1655
456	... .. Inner Cushion-D	QPN-1658

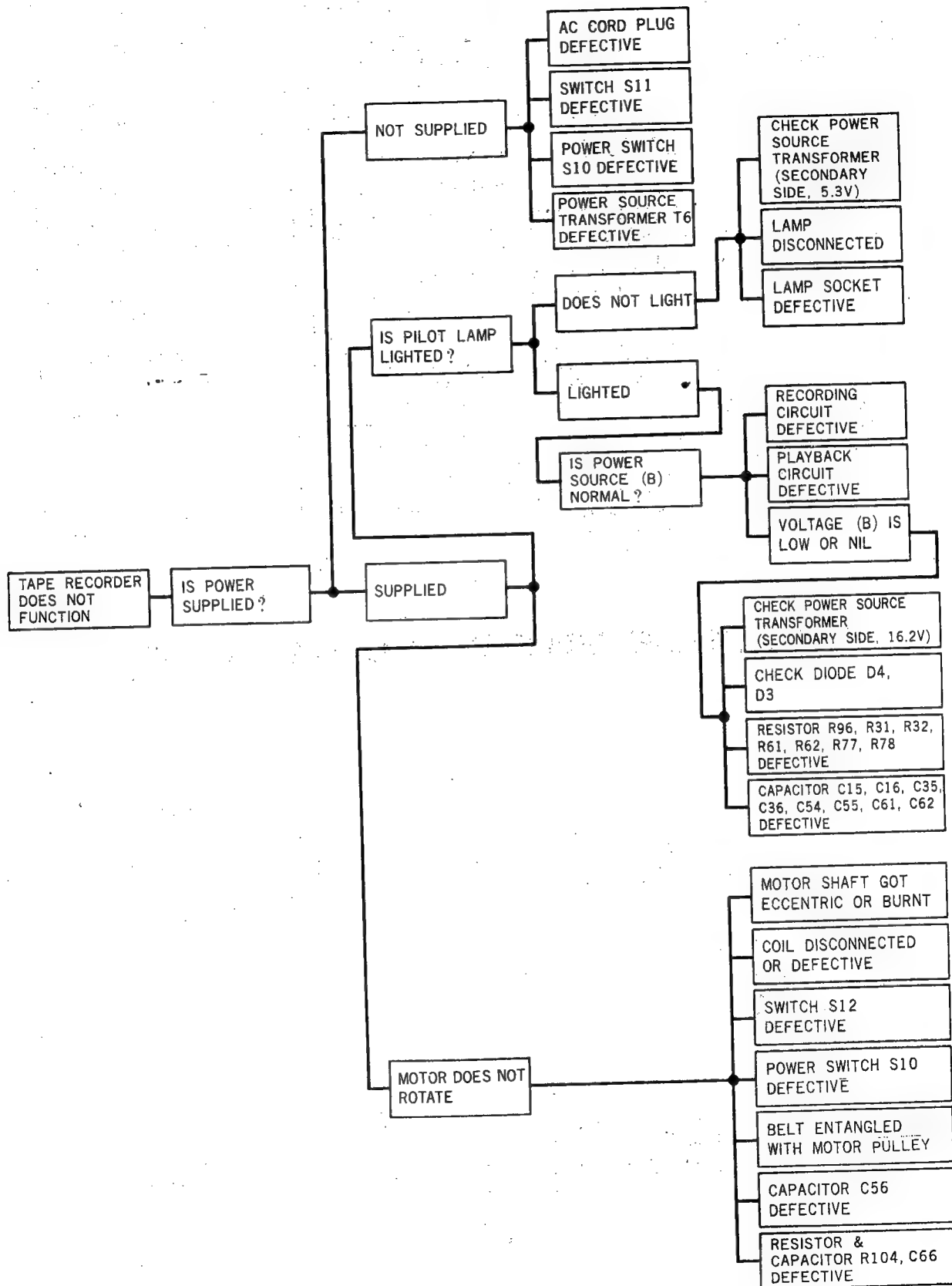
# TROUBLE SHOOTING GUIDE 1



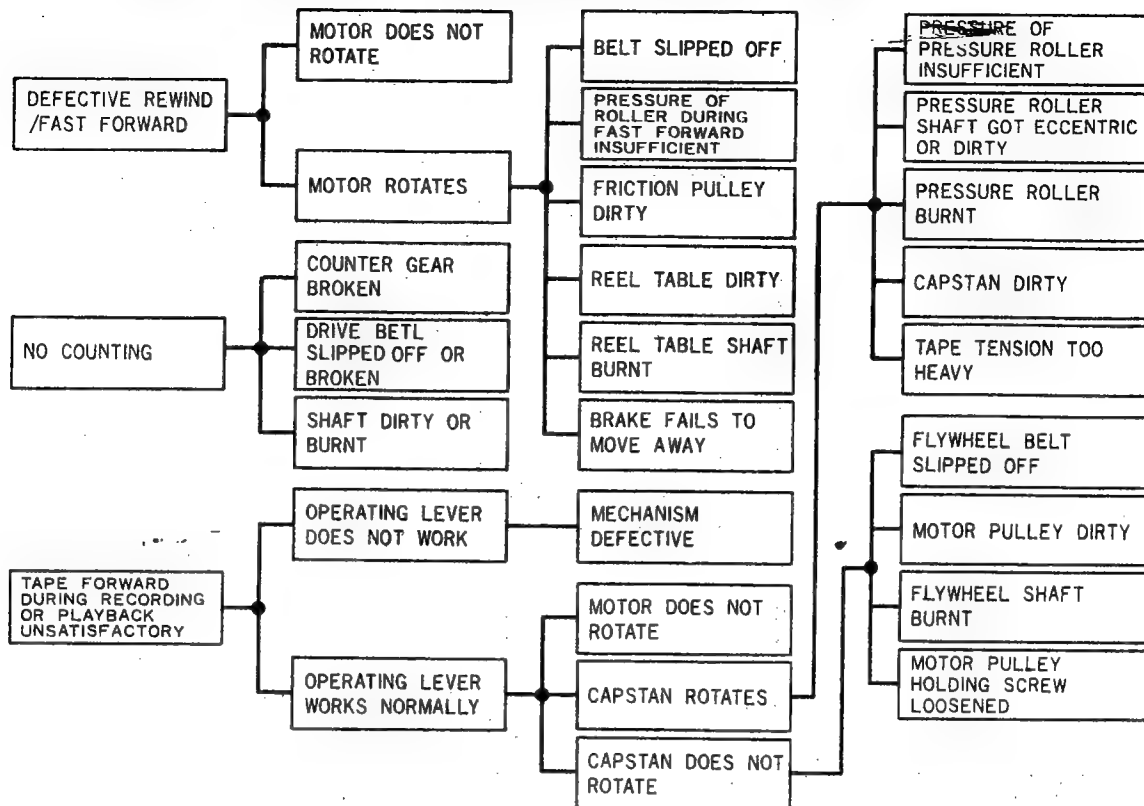
# TROUBLE SHOOTING GUIDE 2



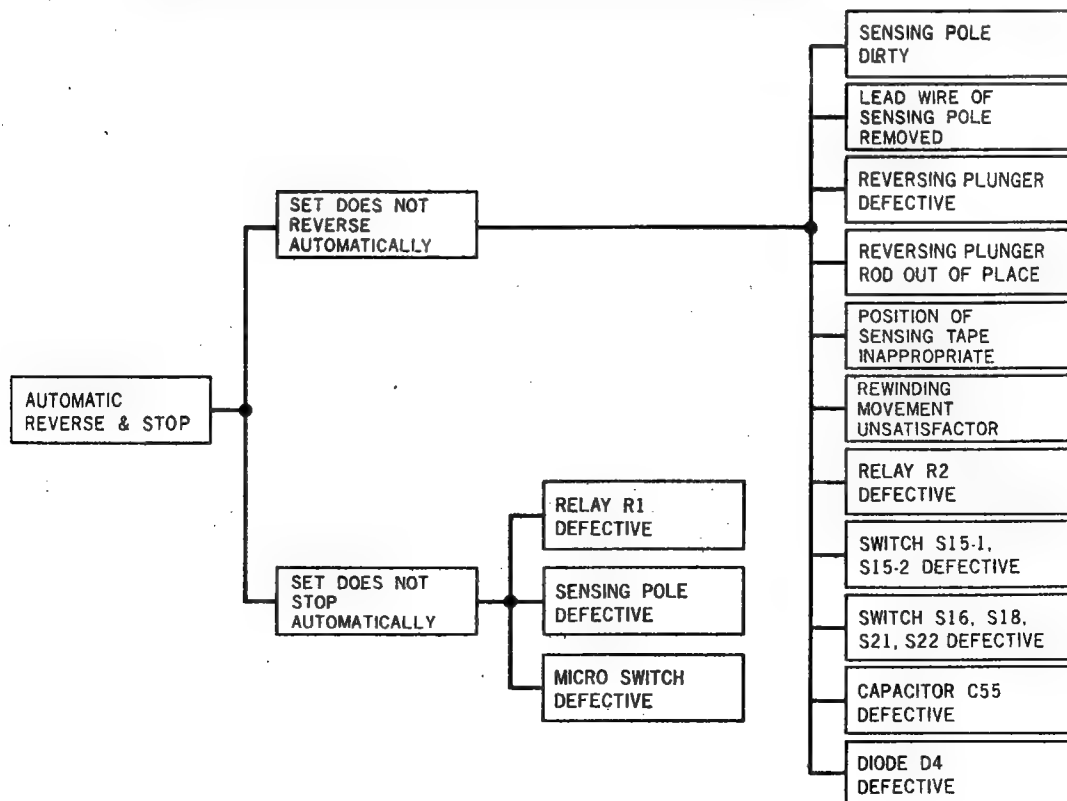
# TROUBLE SHOOTING GUIDE 3



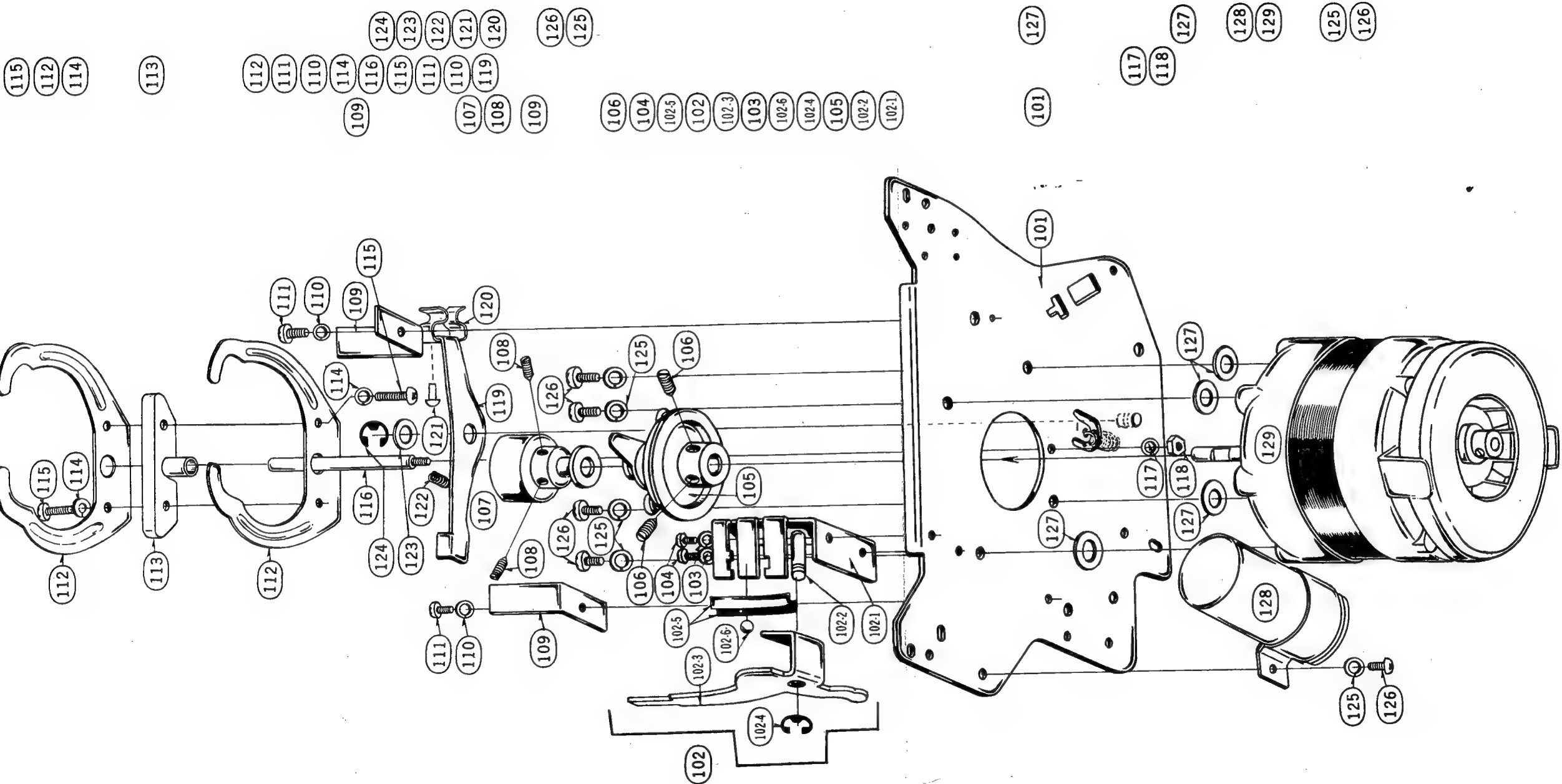
## TROUBLE SHOOTING GUIDE 4



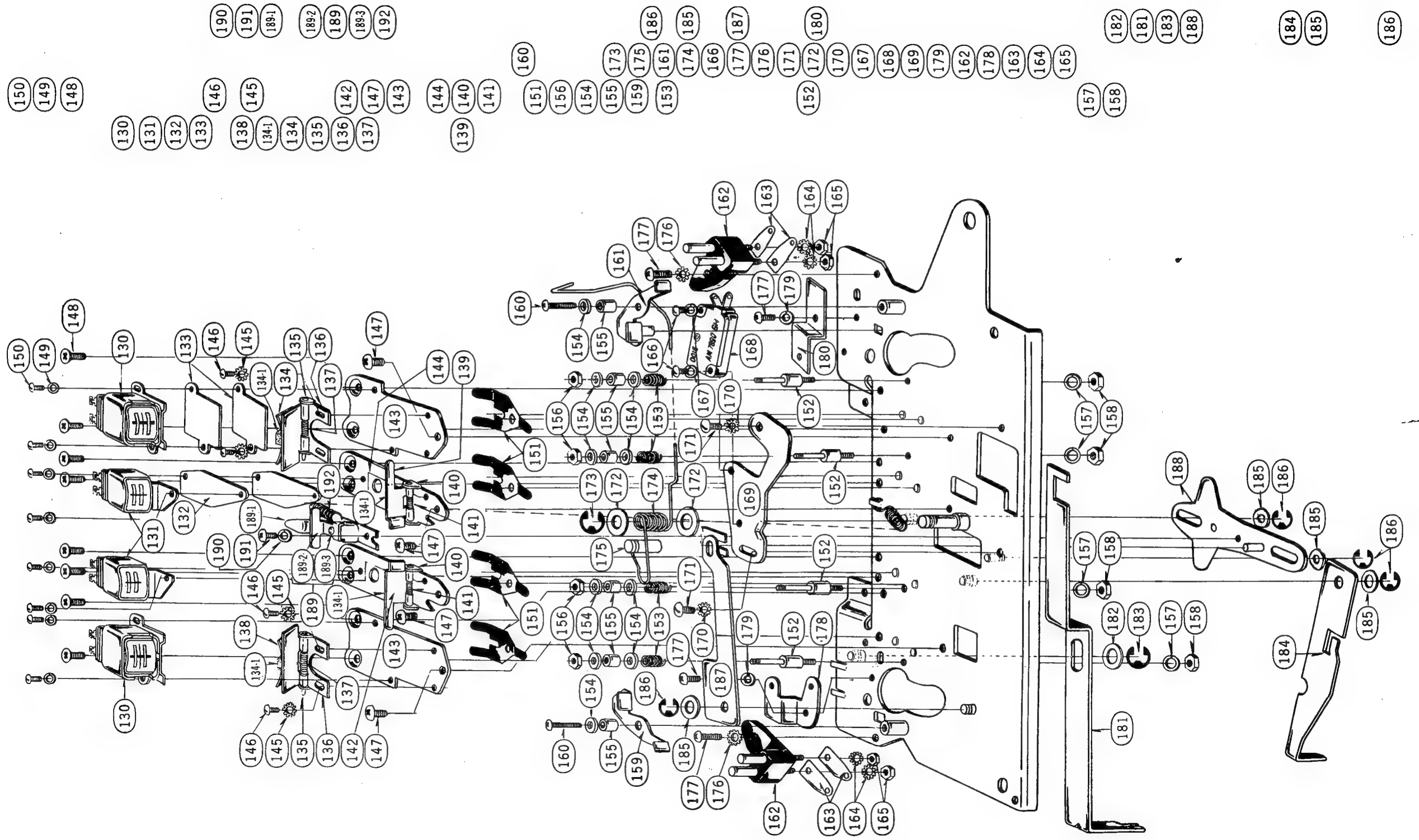
## TROUBLE SHOOTING GUIDE 5

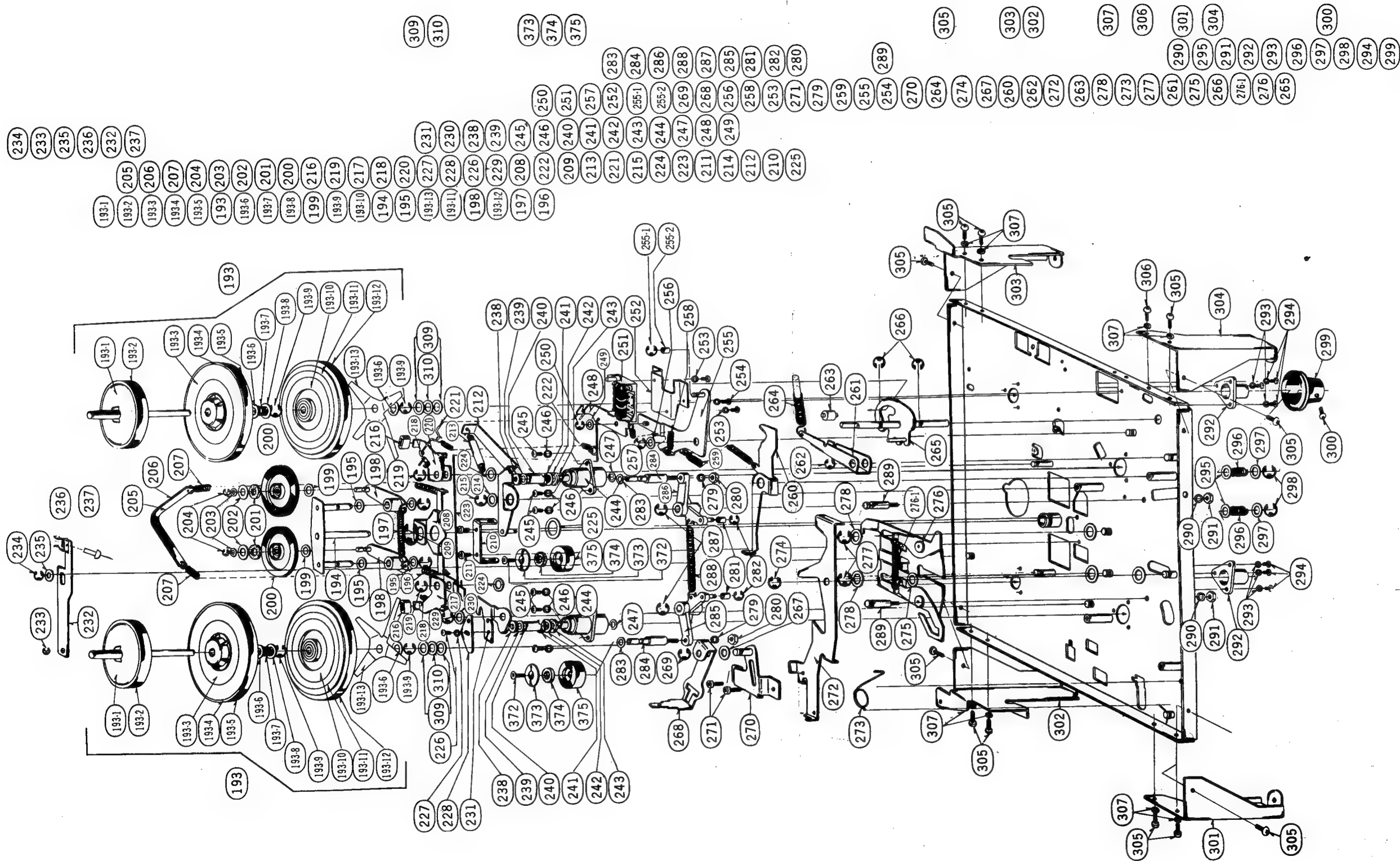


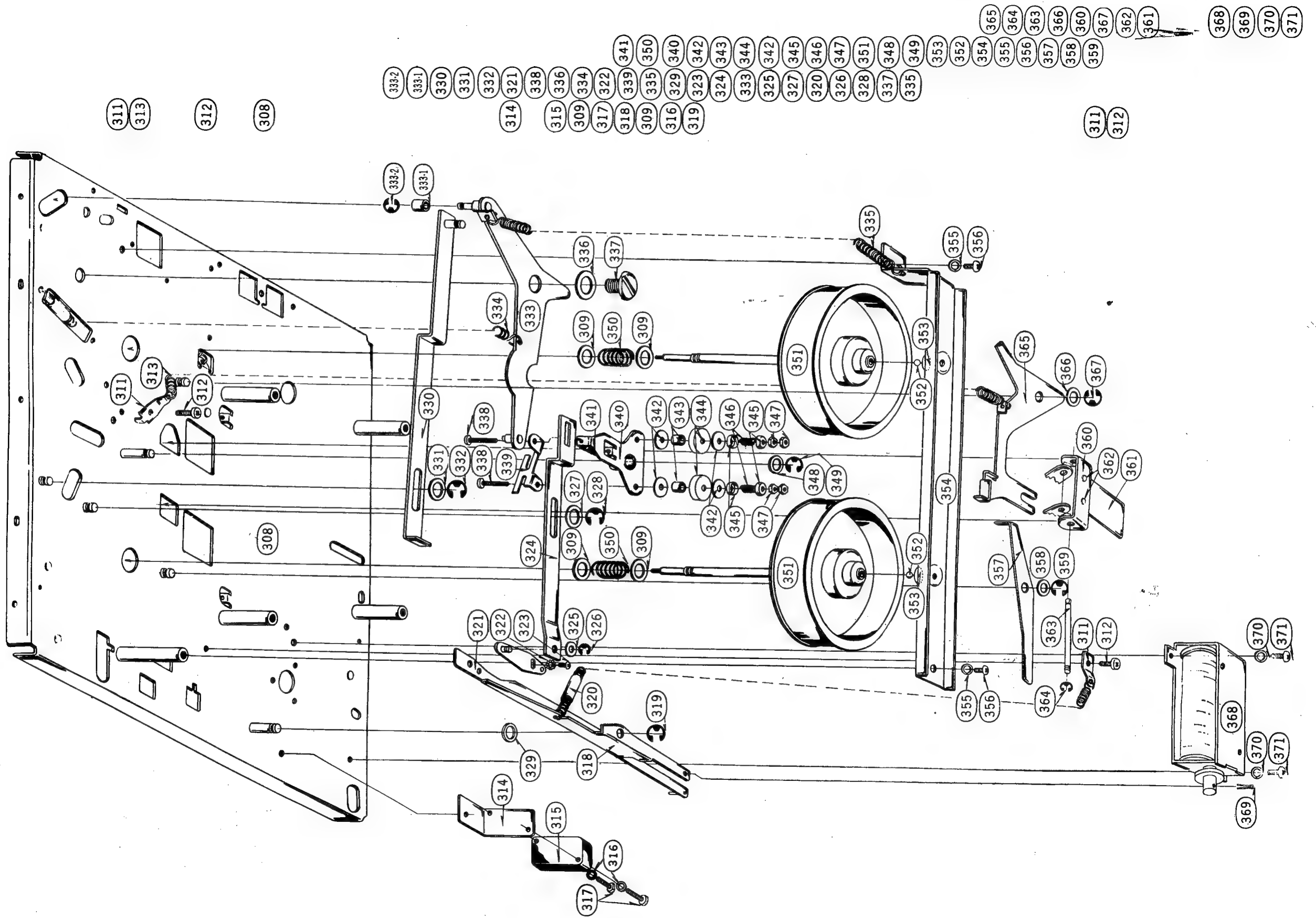
# EXPLODED VIEWS





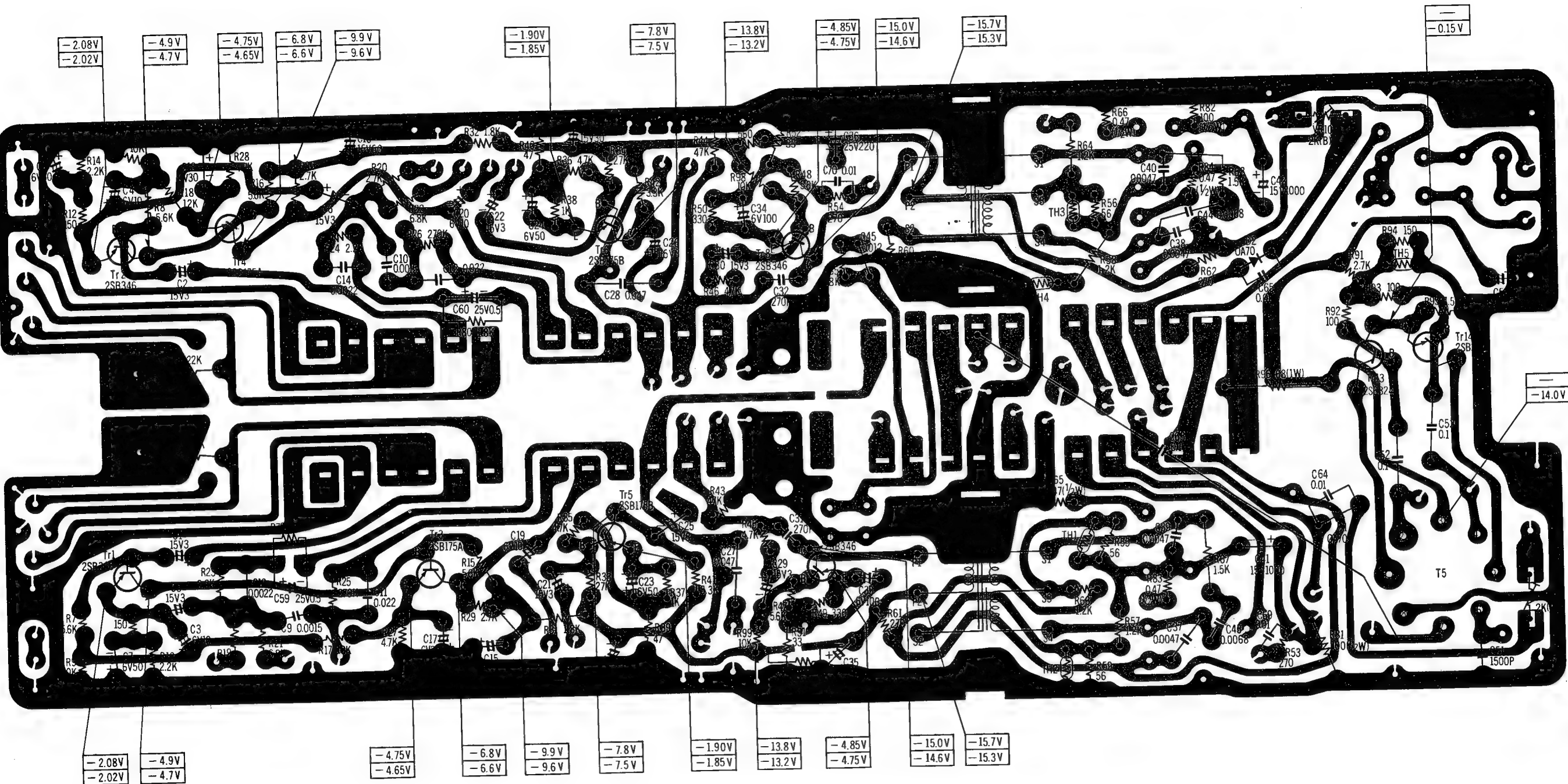






# CIRCUIT BOARD

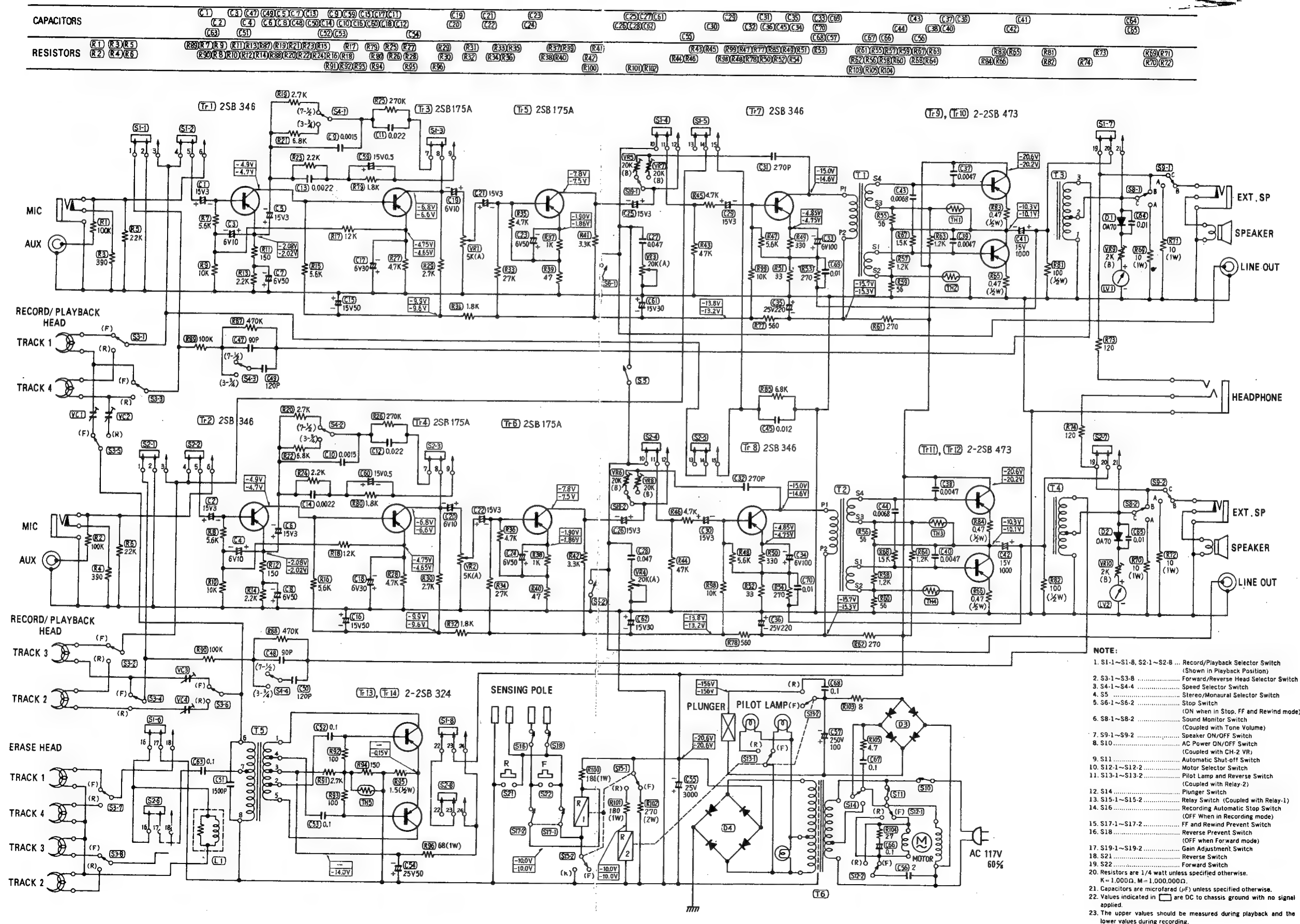
## CONDUCTOR SIDE



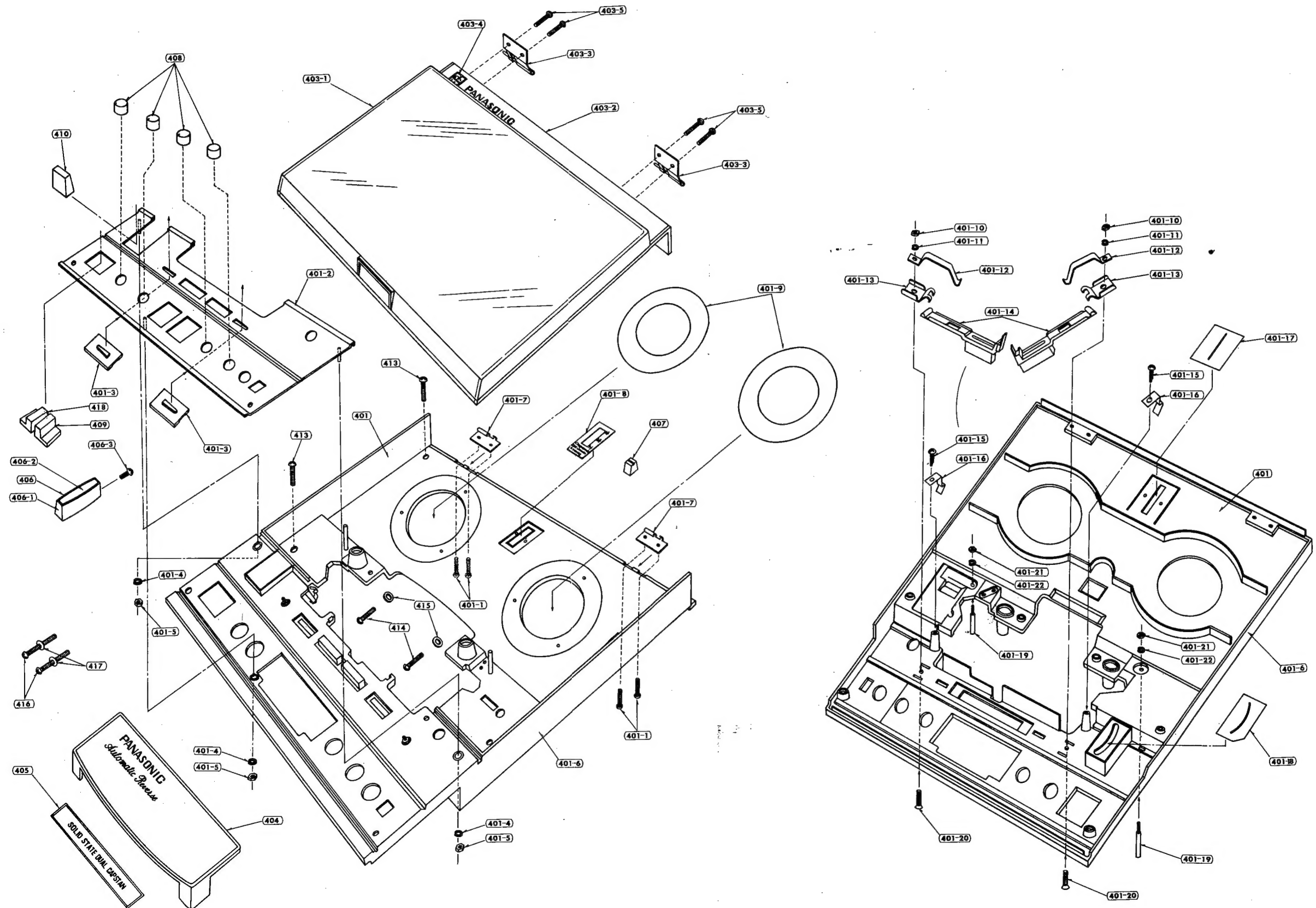
**NOTE:**  
 The Circuit shown in Blue on the Conductor Side is Ground Circuit.  
 Values indicated in   are DC to chassis ground with no signal applied.  
 The upper values should be measured during playback and the lower values during recording.



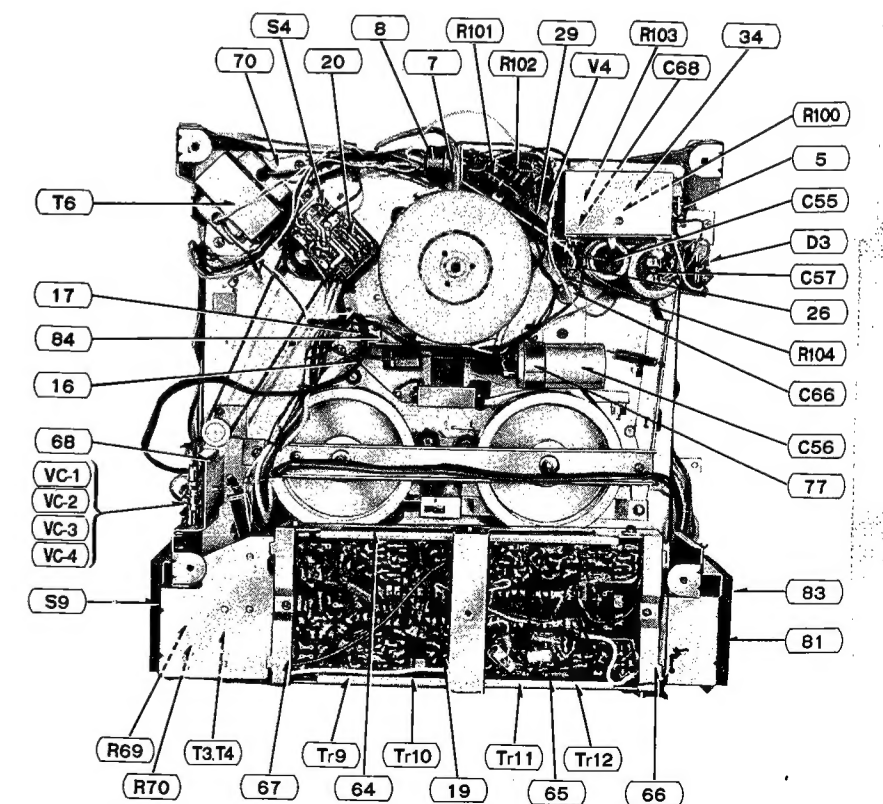
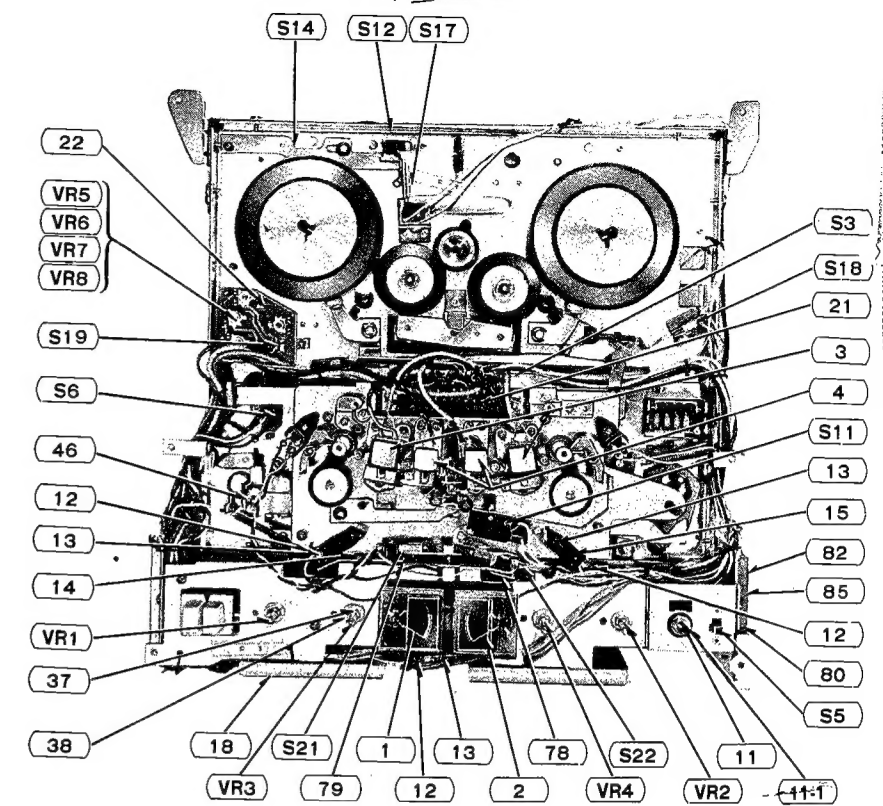
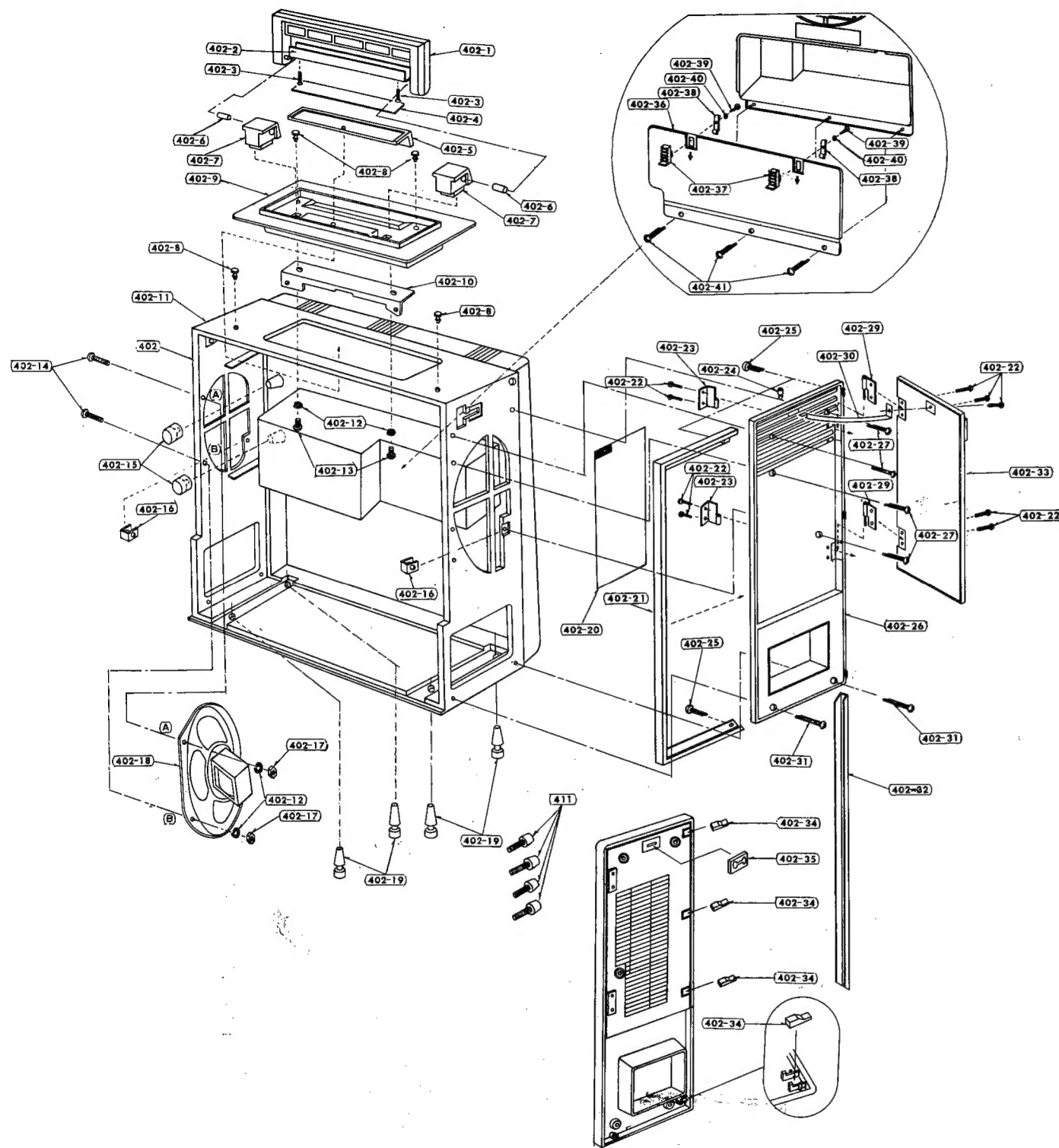
# SCHEMATIC DIAGRAMS MODEL RS-790S



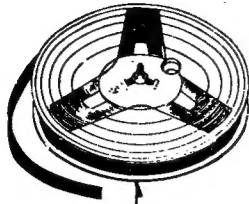
# CABINET PARTS



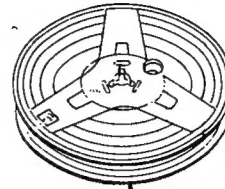
# ELECTRICAL PARTS LOCATION



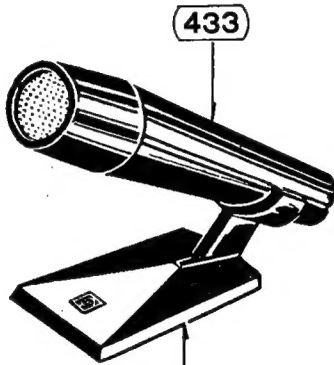
# ACCESSORIES



431



432



433

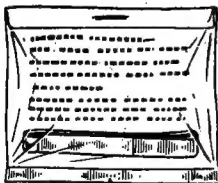
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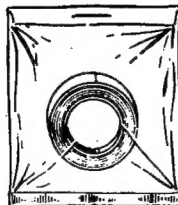
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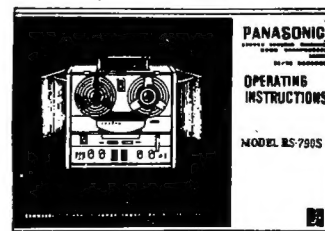
436



437



438



439



# COMPONENT PACKING

